

# Occidental Petroleum Corporation



*annual  
report  
1964*

The 97 photographs on the covers of this annual report represent a random cross-section of Occidental Petroleum Corporation's world-wide activities in seven principal fields. Keyed according to the color of the respective photographs, these fields are:

### Front Cover

- 1 Canadian freighter takes on 1,700 tons of Jefferson Lake Petrochemicals sulphur at Vancouver for shipment to South Africa.
- 2 More than 35 million Mcf of pipeline gas was processed and sold last year by Calgary, Canada, plant of Petrogas Processing Ltd.
- 3 Aircraft is loaded with Interore fertilizer for spreading over hilly Australian pasture.
- 4 Roughnecks in action during drilling of Occidental well at Oakley-Dutch Slough field, California.
- 5 California Ammonia Co. (Calamco) plant at Lathrop, California.
- 6 Condominium Townhouses, in wide variety of floorplans and exterior stylings, are featured at S. V. Hunsaker & Sons Sunshine Village development.
- 7 Rig drilling away at Occidental hilltop site in White Wolf area of California's Kern County.
- 8 Temporary plank road provides access to difficult Occidental drilling site in Louisiana backwoods.
- 9 California farmer prepares to apply Best Fertilizers Co. ammonium sulfate to his field.
- 10 Steel columns will support dry bins at Occidental Corporation of Florida's new phosphate rock processing plant at Suwannee River Mine.
- 11 Philippine freighter SS Manila is one of many foreign vessels represented in Tampa, Florida, by Interore Shipping Corporation as owners' agents.
- 12 Dry bin supporting structure nears completion at Occidental's Suwannee River phosphate plant in Florida. Twin railroad tracks will run through building.
- 13 Massive tanks are part of highly specialized Petrogas Processing facilities for treating of pipeline gas.
- 14 Catalyst beds and condensers clustered at base of huge exhaust stack at Petrogas Processing's Canadian sulphur plant.
- 15 Technician checks Petrogas gauges on sulphur reaction conversion furnace.
- 16 Mapleton model, one of many popular single-story S. V. Hunsaker designs, is ready for occupancy at Fountain Valley, California, development.
- 17 Bulk fertilizer, destined for aerial application to sugar cane field, is sacked in Interore's Honolulu warehouse.
- 18 Natural gas from Occidental's nearby McMullin Ranch field passes through automatic regulating equipment on way to Best Fertilizers' Lathrop plant for use in production of ammonia.
- 19 Jefferson Lake Petrochemicals' Coleman sulphur plant at foot of Rocky Mountains, 80 miles south of Calgary, Canada.
- 20 Aerial spreading of Interore fertilizer is key to pasture improvement program in southeast Australia.
- 21 Fully equipped mud-logging trailer permits continuous field analysis of mud samples as Occidental well is being drilled.
- 22 Field hands prepare to apply Interore fertilizer on sugar cane field at Negros Island, Philippines.
- 23 Occidental's highly successful steam flood (thermal recovery) project at Amber Lease, California, utilizes steam generator, water softener, and other specialized equipment.
- 24 More expensive S. V. Hunsaker homes, such as split-level Laurelwood model, are offered in Covina and Chatsworth, California, developments.
- 25 Powerful hot carbonate pumps in Petrogas Processing's gas treater building help separate sulphur from gas.
- 26 SS Rice Queen brings phosphate rock from Florida to Stockton, California, for processing by Best Fertilizers, and on return trip carries rice to Puerto Rico.
- 27 Twin towers of Lathrop ammonia synthesis unit are typical of complex equipment used in production of Best fertilizers.
- 28 Banks of recording meters dominate console in central control room of gas treater building at Petrogas Processing.
- 29 Recently activated Best Fertilizers Plainview, Texas, plant includes a 100,000 sq-ft warehouse with a storage capacity of 75,000 tons of dry fertilizer.
- 30 Skip loader funnels sulphur on conveyor for loading on Canadian railroad cars at Petrogas Processing plant.
- 31 Cooling tower and sulfuric acid facility are small part of Best Fertilizers new Plainview plant.
- 32 "Christmas tree" caps newly completed Occidental gas well prior to installation of surface production facilities.
- 33 Direct-fired and hydrocarbon stabilizer section stands in front of gas processing towers at Petrogas plant.
- 34 Shown under construction, 14-mile pipeline in California's San Joaquin County now carries natural gas from Occidental wells to market.
- 35 Railroad car on dockside spur at Santos, Brazil, is loaded with Best fertilizer for local distribution by Interore.
- 36 Skid-mounted meter run flanks heater tank at producing Occidental gas well.
- 37 Shipped in bulk, fertilizer is bagged for distribution at Interore's New Delhi, India, warehouse.
- 38 Occidental oil well pumps continuously at remote mountain site.
- 39 Coco Palms Apartments in S. V. Hunsaker Anaheim, California, development feature air-conditioned fourplex units in tropical setting.
- 40 Experiments conducted by Occidental's analytical laboratory in Lakeland, Florida, are aimed at eventual commercial exploitation.
- 41 Workmen erect new building at Peace River sulphur plant of Jefferson Lake Petrochemicals, 750 miles northeast of Vancouver, Canada.
- 42 Petrogas technician checks recording gauges on inlet gas stabilizer control equipment.
- 43 Twin tanks in foreground store condensate stabilizer at Petrogas.
- 44 Day's end finds hundreds of Southern California families enjoying the comfortable living of a typical S. V. Hunsaker planned community.
- 45 Bulk Jefferson Lake sulphur on dock at Galveston, Texas, is ready to be loaded aboard freighter.
- 46 Italian farmer uses tractor-drawn spreader to apply Interore fertilizer to field.
- 47 Best Fertilizers Plant No. 2 in Houston, Texas, doubles production and warehousing capacity of previous Houston facilities.
- 48 Storage tank holds production from Occidental wells.

OIL and GAS: brown  
DOMESTIC FERTILIZERS: green  
INTERNATIONAL FERTILIZERS: blue  
PHOSPHATES: orange  
SULPHUR: yellow  
PETROCHEMICALS: red  
HOME BUILDING: purple

## CORPORATE HIGHLIGHTS

*The principal corporate developments discussed in this report are:*

- ◆◆◆ New record high for revenues and income: net income \$1.48 per share, up 20% over 1963.
- ◆◆◆ Addition of oil and gas reserves (exclusive of reserves acquired through mergers) of an estimated 23 million barrels of oil and 55 billion cubic feet of gas, valued at approximately \$45 million (equivalent to \$6.00 per share).
- ◆◆◆ Record total of 108 producing wells completed: 34 gas, 74 oil.
- ◆◆◆ New discoveries: East Beverly Hills, California (oil); LaCal Frio, Texas (gas); Mulvey, Louisiana (oil).
- ◆◆◆ Development of Oakley-Dutch Slough as third largest gas field in California.
- ◆◆◆ Lathrop Gas Field minimum "take-or-pay" to be doubled.
- ◆◆◆ Thermal recovery (steamflood and fireflood) operations proved successful.
- ◆◆◆ New records for production and sales set by Jefferson Lake Sulphur Company and its 69%-owned subsidiary, Jefferson Lake Petrochemicals of Canada Ltd., during first year of operation as Occidental subsidiaries.
- ◆◆◆ \$15 million expansion program for Jefferson Lake's Canadian operations.
- ◆◆◆ Agreement signed with Saudi Arabian Government for \$20 million ammonia plant using 100% Saudi Arabian funds.
- ◆◆◆ Best Fertilizers companies' greatest year of growth in revenues and profits.
- ◆◆◆ First commercial superphosphoric acid plant (80% P<sub>2</sub>O<sub>5</sub>) for new type fertilizers.
- ◆◆◆ Suwannee River Phosphate Mine opened in Hamilton County, Florida; scheduled for July 1965 completion.
- ◆◆◆ Entry into California home building field through acquisition of S. V. Hunsaker & Sons, Inc.
- ◆◆◆ Successful rights offering to shareholders, increasing equity by \$21.3 million.
- ◆◆◆ Record investment in property, plant and equipment: \$23.9 million in 1964 vs \$14.8 million in 1963.

## FINANCIAL HIGHLIGHTS

	1964	1963
Gross Income, excluding sales of gas production payments .....	\$ 45,170,000	\$38,791,000
Net Income .....	\$ 9,381,000	\$ 7,803,000
Net Income Per Share (1) .....	\$ 1.48	\$ 1.27
Total Assets at Year End .....	\$113,462,000	\$78,200,000
Stockholders' Equity .....	\$ 47,681,000	\$40,930,000
Dividends Per Share		
Cash .....	\$ 0.50	\$ 0.50
Stock .....	4%	4%
Cash equivalent of dividends (2) .....	\$ 1.70	\$ 1.52
Average Number of Shares Outstanding		
During Year .....	6,330,000	6,141,000
Number of Shareholders .....	33,000	23,000
Number of Employees .....	1,800	750

(1) Based on average number of shares outstanding after giving retroactive effect to (a) 4% stock dividend declared in December 1962, and issued in January 1963, (b) 4% stock dividend declared in December 1963, and issued in January 1964, and (c) the issuance of capital stock in connection with acquisitions accounted for as poolings of interests.

(2) On the basis of the average market price of \$25.50 for 1963 and \$30.00 for 1964.



*Dr. Armand Hammer  
President and  
Chairman of the Board*

#### **REPORT OF THE PRESIDENT TO THE SHAREHOLDERS**

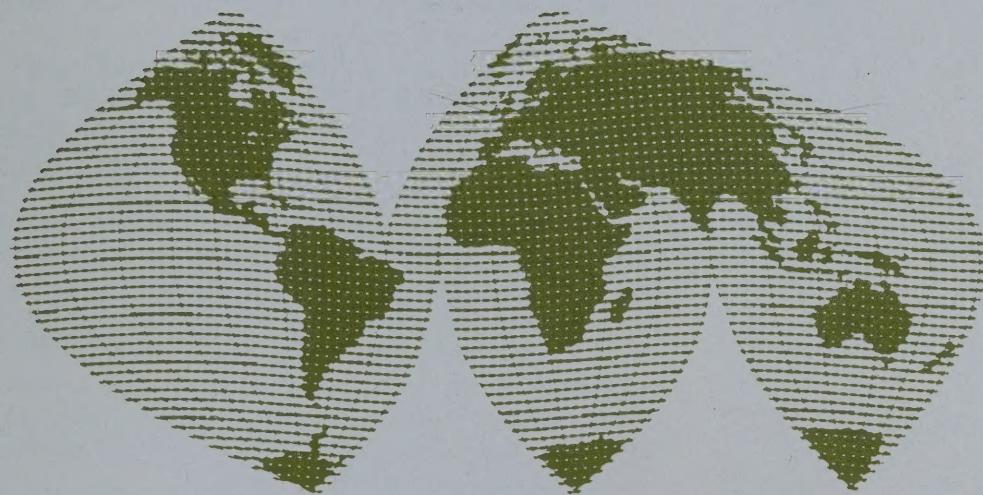
1964 marked the most dramatic year of achievement of any 12-month period in your Company's 45-year history.

From our modest beginning in the field of fertilizers and agricultural chemicals in mid-1963, we have progressed to the point where sales of these products during 1964 amounted to \$110 million. This includes \$82.2 million by our wholly-owned subsidiary International Ore & Fertilizer Corporation (Interore).

Exploration, development and production of crude oil and natural gas in 1964 reached all-time highs, and numerous accomplishments were also recorded in sulphur, petrochemicals and home building. Past records of revenues and profits in all areas of your Company's activities were exceeded by large margins.



Occidental  
Petroleum  
Corporation



Operating revenues for the year 1964, excluding unconsolidated subsidiaries, were \$45,170,000 compared with \$38,791,000 for the year 1963. Net income for 1964 was \$9,381,000 compared with \$7,803,000 for 1963, an increase of 20 percent. Per-share earnings were \$1.48 for 1964 on 6,330,000 shares compared with \$1.27 per share on 6,141,000 shares for 1963. Including our unconsolidated, wholly-owned subsidiaries, S. V. Hunsaker & Sons, Inc., with 1964 sales of \$43.5 million, and Interore with \$82.2 million, your Company had total revenues for 1964 of \$171 million.

These record sales and profits were achieved in spite of a 33-day strike at Best Fertilizers' Lathrop plant last summer and the fact that, due to unforeseen circumstances, our ammonia plant at Plainview, Texas, did not go on stream until the last of May, too late for the Spring 1964 growing season. We expect that in 1965 these plants, along with other new projects discussed in this report, will contribute ma-

terially to a substantial increase in profits per share over those reported in 1964.

Since Occidental is engaged primarily in the extraction of natural resources, increases in shareholders' equity cannot be judged by annual earnings alone. The reserves of oil, natural gas, sulphur and phosphate rock added in 1964 will yield profits over the producing lives of the properties. This is particularly true with respect to oil and gas operations where vast increases in your Company's reserves resulted from our highly successful exploration activities during the past year.

Your Company's engineers estimate that primary reserves of 55 billion cubic feet of gas and 23 million barrels of oil have been added since our last annual report, having a total discounted present value (after provision for cost of operation and development) of approximately \$45 million, or about \$6.00 per share. This is more than four times the value of reserves of oil and gas added during 1963.



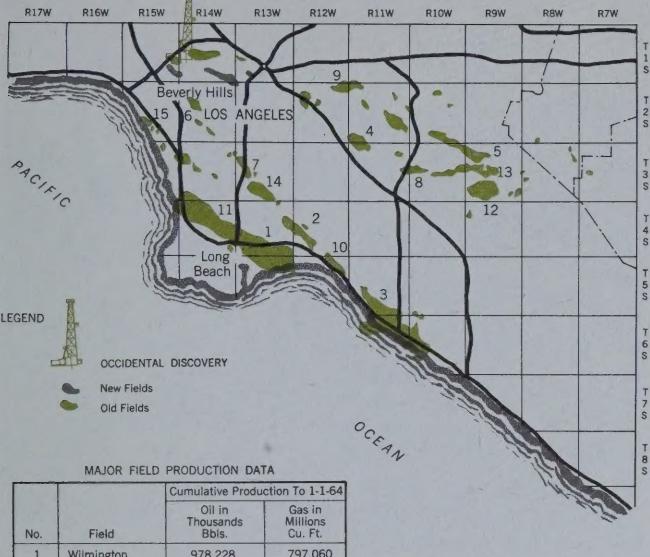
## OIL AND GAS DIVISION

During 1964 a record of over 200 miles of hole was drilled in the wells in which your Company held a participating interest. A record total of 108 wells were completed as producers (34 gas and 74 oil) — more than the entire number of wells, including dry holes, drilled in the preceding year. There was an increase of approximately 60 percent in the total number of wells and footage drilled when compared with 1963 (see summary on page 21).

In 1964 your Company spent \$2.75 million to explore on a total of 35 separate prospects. Three discoveries (discussed below) resulted, and continuing exploration possibilities exist on 12 of the prospects. During 1965 we expect to increase our exploration budget to \$4 million and, because we do not plan to have a domestic participation program in 1965, our share in future discoveries will be increased from about 61.5 percent to 100 percent.

### *East Beverly Hills Area, Los Angeles County, California*

The most significant discovery made by your Company in 1964 was a new oil pool within the City of Los Angeles in the vicinity of Beverly Hills. Our leases, covering approximately 500 acres, include more than 2,200 individual parcels in which Occidental owns 61 percent of the working interest. The City of Los Angeles rigidly controls oil exploration activity in this highly urban area. A permit was acquired from the City which allowed your Company to drill an exploratory core hole at the intersection of Beverly Drive and Pico Boulevard. Operations were limited to 14 hours per day for a 30-day period, during which time the core hole was drilled to 7,002 feet. Open hole drill stem tests were not allowed under the city permit, but the combination of log data, continuous analysis of drill returns, and sidewall core samples proved conclusively that the well penetrated approximately 500 net feet of productive oil sand. Zones of the same Upper Miocene geologic age are producing in the Beverly Hills Oil Field (with a well located just 2,500 feet westerly from the Occidental core hole). Dipmeter data from the core hole and regional considerations indicate



*Occidental discovery in Los Angeles Basin, where cumulative production from major fields to date has exceeded 5.2 billion barrels of oil and 5.8 trillion cubic feet of gas.*

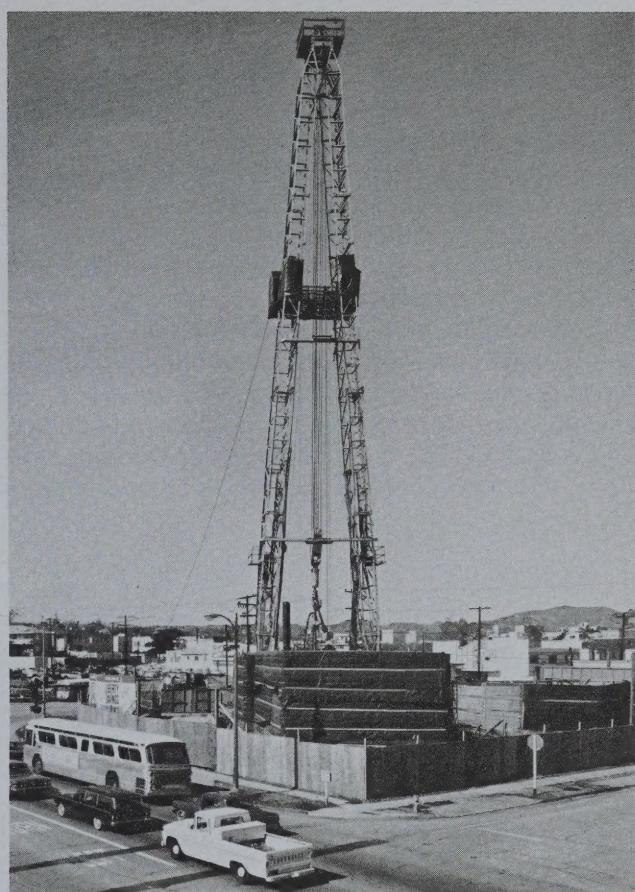
that our acreage is located on the same anticline as is the Beverly Hills field. Pressure information indicated that the Occidental core hole is bottomed in a separate and virgin (unproduced) oil reservoir.

On March 1, 1965, we filed our application for the formation of three drilling districts within the City of Los Angeles, and approval is expected shortly for the drill site, already acquired by your Company within these districts, from which development wells will be directionally drilled commencing about mid-1965.

Our engineers have estimated that the Occidental mineral leases within the prospect area should yield, net to your Company's interest after payment of all costs and royalty of 17.7 percent, approximately \$50 million over the next ten-year period. This calculation is based on receiving \$3.10 per barrel for the indicated 29 gravity oil and profits from its associated gas. We have not taken into account any income from either deeper or shallower zones which may be productive and which are producing nearby on the same structural feature. The East Beverly Hills discovery is the largest made by your Company since the Lathrop Gas Field late in 1961, and should add substantially to our 1965 profits.

#### LaCal Frio Field, Willacy County, Texas

One of the highlights of 1964 was the successful completion of the "Beatty Yturria Cattle Company"



*Exploratory core hole penetrates 500 net feet of productive oil sand at new Occidental discovery in Los Angeles near Beverly Hills, California.*

#1 well as a new field discovery 90 miles southwest of Corpus Christi, Texas. The discovery well was completed as a dual-zone gas-condensate producer in Upper Frio sands between depths of 7,650 and 8,500 feet. Four additional gas zones, not perforated, were left in reserve behind the pipe. In production tests through a 1/4-inch choke, the well flowed at the combined daily rate of approximately 6 million cubic feet of gas and 86 barrels of condensate.

The discovery well is located on a lease block of 3,000 acres in which Occidental and its participants hold 40 percent of the working interest. Operations have commenced on an additional three-well development program to increase the proven reserves. Initial contacts with prospective gas purchasers indicate that there is a shortage of gas dedicated to intra-state users in the area, and this situation should lead to favorable contract terms.

The possibility of the existence of a major petroleum accumulation in a series of deeper Lower Frio sands appears particularly good, based on the deep structures indicated by seismic survey data. A deep test to evaluate this additional potential is planned to follow the three-well development program which is now under way. In the nearby King Ranch, these deep zones have reserves estimated at one trillion cubic feet of gas per section (640 acres).

### *Mulvey Field, Vermilion Parish, Louisiana*

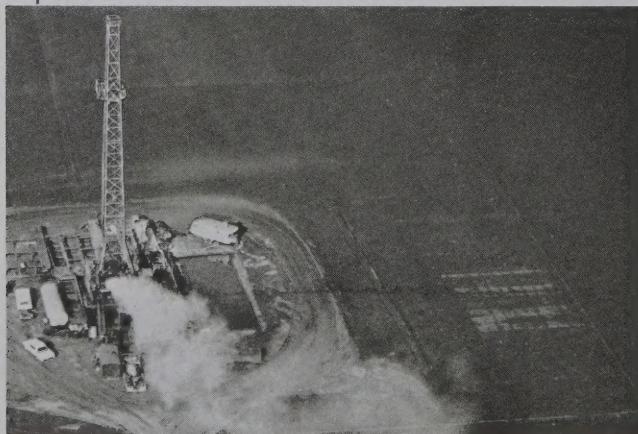
Another successful completion in 1964 was our "Edmay Hebert Langlinais" #1, in November 1964, marking the discovery of the Mulvey Oil Field.

The well, located 20 miles southwest of Lafayette, Louisiana, is situated on a land block of about 1,500 acres where your Company owns an average of 41 percent of the working interest. Oil production is from the Planulina sand of Lower Miocene age at a depth of approximately 12,000 feet. Initial controlled production rate was 228 barrels of oil per day through a  $\frac{1}{8}$ -inch choke. A follow-up well is planned after additional production history is obtained, which should lead to further development and materially increase the reserves and production from this field. The 49 gravity oil is sold under contract for \$2.91 per barrel.

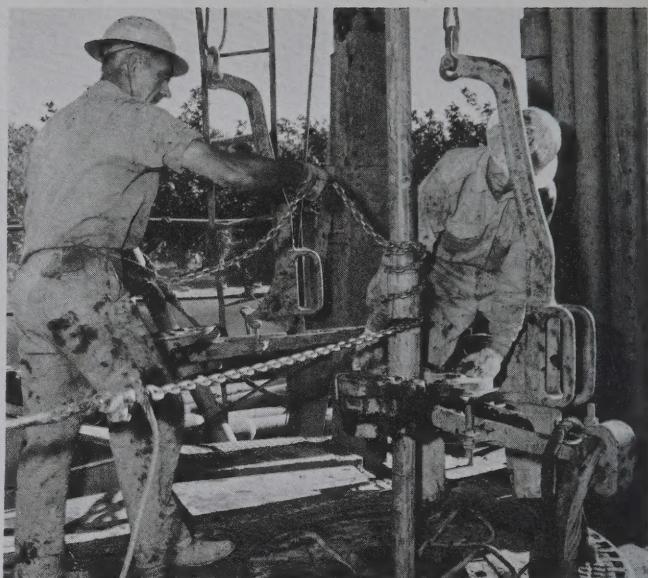
### *Lathrop Gas Field, San Joaquin County, California*

Two additional wells have been completed in the Lathrop Gas Field since January 1, 1964. Pressure performance has been excellent, indicating to your Company's engineers and the consulting engineering firm, De Golyer and MacNaughton, the accuracy of early estimates of recoverable gas in place amounting to approximately three-quarters of a trillion cubic feet. Our contract with Pacific Gas & Electric Company (PG&E) provided for determination of the remaining reserves at January 1, 1965, and adjustment of the average daily minimum (take-or-pay) guarantee to 1/365ths of 1/18th of the remaining reserves.

An interim agreement has been reached with PG&E to increase this minimum "take-or-pay" to 100 million cubic feet per day from the previous guarantee of 50 million cubic feet per day, retroactive to January 1, 1965. The reserves and minimum guarantee will be reviewed after a period of 18 to 24 months, depending upon when adequate additional pressure data is available. Our present price for this gas of 26.5¢ per Mcf (1,000 cubic feet) will continue for the time being, but is subject to redetermination at periodic intervals in the future.



*Two new natural gas wells were successfully completed on Occidental's Lathrop Field during 1964.*



*Roughnecks set fast pace as Occidental drills on Oakley-Dutch Slough Field, which now ranks as third largest natural gas field in California.*

### *Oakley-Dutch Slough Gas Field, Contra Costa County, California*

Your Company's reserves of natural gas and condensate were materially increased as a result of the successful development of our portion of the Oakley-Dutch Slough Gas Field during the past year. Our early predictions of the potential size of the field have been confirmed and it now ranks as the third largest gas field in California. During 1964 and the first quarter of 1965, your Company and our investor-participants drilled and completed ten producing wells (four of them dual-zone completions), bringing to 11 the total number of wells in which your Company has an interest in the field. Occidental owns from 54.7 to 57.5 percent of the working interest in eight of the wells and 28.75 percent in three wells.

A gas purchase contract has been signed with PG&E providing for an initial price of 32¢ per Mcf, with a minimum daily guaranteed "take-or-pay" of 36,000 Mcf commencing April 1, 1965. Occidental and participants' share of this will be 14,000 Mcf per day. In addition, we will also be selling substantial quantities of condensate produced in conjunction with the gas.

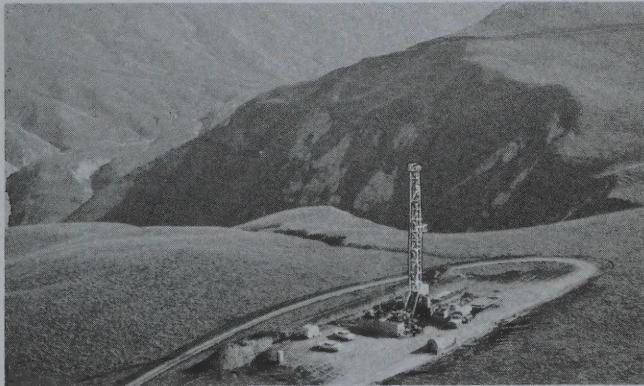
We expect to explore aggressively our 4,500-acre lease block for deeper objectives and new pools during 1965. Data derived during the past development indicate favorable geologic conditions for the discovery of additional oil and gas. New reserves can be rapidly marketed under very favorable terms because growing industrial complexes as close as five miles and extending to the San Francisco Bay Area provide continuously expanding gas markets. (See map on page 8 showing location of gas and oil fields discovered by Occidental in relation to major population centers of northern California.)

### *White Wolf Oil Field, Kern County, California*

Development of our White Wolf shallow oil field, discovered in the Spring of 1964, has progressed rapidly and we have now completed 22 producing wells in three separate oil reservoirs ranging from 620 feet to 3,500 feet in depth. The sands are tightly folded, resulting in sand thicknesses up to 1,400 feet in some instances, with the field averaging 500 to 600 feet of oil sand per well open to production. Primary producing rates were very encouraging, indicating that the thermal recovery potential is favorable. In a recent test, a well that produced four barrels per day on primary increased after steaming to a stabilized rate of 350 net barrels of oil per day. Further study and testing is being conducted.

### *Clarksburg Gas Field, Yolo County, California*

The completion of two development wells and the abandonment of an exploratory stepout well has delineated the Clarksburg Gas Field. The two successful wells were completed at depths near 7,400 feet from the same Pollock sand that is productive in the other two field wells completed during 1963. Negotiations are in progress with two prospective purchasers for the Clarksburg gas and we believe that a sales contract will be negotiated by mid-year so that these wells will begin to add to company earnings. There are deeper objectives on our lands which remain to be tested.



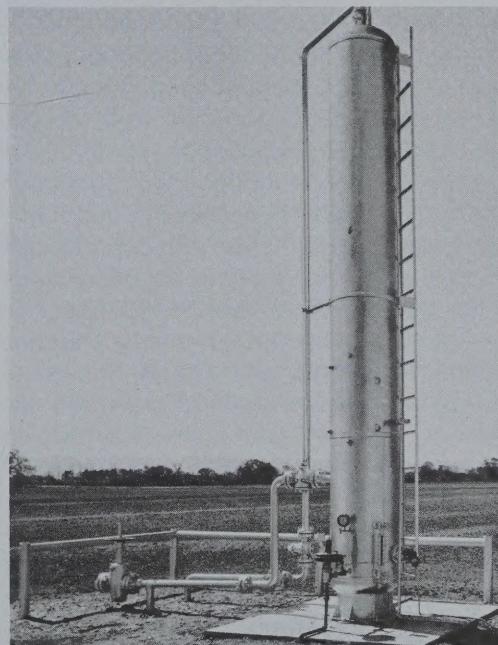
*With 22 producing oil wells already completed, Occidental speeds development of White Wolf Field in mountainous area of Kern County, California.*

### *McMullin Ranch Gas Field, San Joaquin County, California*

Deep zone (Upper Cretaceous E zone) gas from our McMullin Ranch wells is being delivered to Occidental's subsidiary, The Best Fertilizers Co.-California Ammonia Co. fertilizer plant in Lathrop, at the rate of approximately 10 million cubic feet per day. This gas is being used as raw material for the manufacture of ammonia, increasing the profitability of Best's operation while at the same time providing a favorable outlet for our deep zone McMullin Ranch gas. One new deep zone well was completed early in 1964 and two new wells were completed in the shallow zones.

### *Brentwood Oil and Gas Field, Contra Costa County, California*

Development drilling continued in the Brentwood Oil and Gas Field with the completion of three gas wells and six oil wells during 1964. All of the wells were completed in the area subject to a joint venture agreement with Shell Oil Company and Brazos Oil & Gas Company where Occidental and its participants own one-third of the working interest. Under a special arrangement with the other co-owners, your Company and participants completed three of the oil wells for their sole account and own all of the working interest in these wells. These wells were completed for rates of 120 to 132 barrels of oil per day. Additional drilling for gas is anticipated during 1965.



*Equipment installation on pipeline transporting natural gas from Occidental's McMullin Ranch Field wells to The Best Fertilizers Co. plant at Lathrop for use as raw material in the manufacture of ammonia.*

### *Cat Canyon Oil Field, Santa Barbara County, California*

Three wells were completed during 1964 in the Cat Canyon Oil Field located 15 miles southeast of Santa Maria. Two of the wells were completed as oil wells and one as a gas well, all at depths above 3,650 feet. The primary rates of low-gravity crude from the oil wells are not significant, but it is anticipated that the injection of steam into these wells will produce dramatic production increases. The gas well is capable of delivering 3,800,000 cubic feet per day, and the excess gas not used in steam generation is expected to be sold. A total of 514 net acres is available for development in the lease block in which Occidental and its participants own all of the working interest. A well will soon be drilled to test a sand that is productive nearby, and if the test is successful, additional development wells will be drilled into this zone.

## *Poso Creek Oil Field, Kern County, California*

Occidental has completed seven producing wells on its new pool discovery made in December 1963 in the Poso Creek Oil Field 12 miles north of Bakersfield. Current primary production is 140 barrels of low-gravity oil per day from depths of about 2,200 feet. Occidental and participants own 100 percent of the working interest in these wells. A major oil company is starting a steamflood on an adjacent property which will test the thermal potential of increasing our production through steam without any cost to us or our participants.

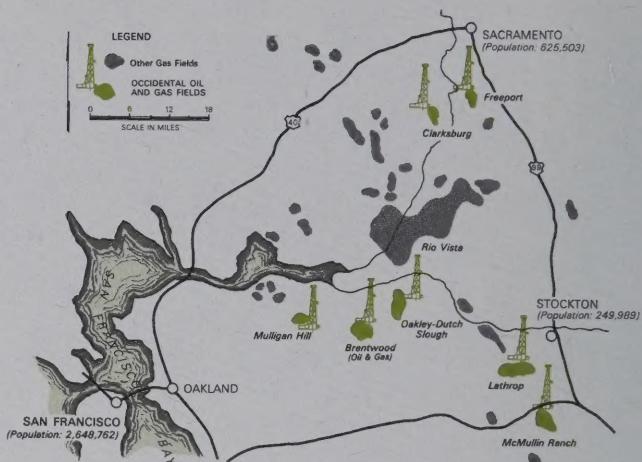
## *Maxie-Ellis Oil and Gas Field, Acadia Parish, Louisiana*

The most important domestic oil and gas producing properties acquired in the merger with Jefferson Lake Sulphur Company were the mineral leases and wells in the Maxie-Ellis Field located 25 miles west of Lafayette. During 1964 your Company participated with others in the drilling and completion of three gas wells and one oil well. Our wells in this field produce from a series of Oligocene sands between the depths of 10,000 and 13,000 feet. Our total interests are in three zonal oil completions and eleven zonal gas completions (a dual-zone well would be equivalent to two zonal completions). The gas zones also produce significant amounts of condensate. We expect our already substantial income from the field to increase materially as soon as certain unitization and marketing matters are resolved, which we expect to accomplish in the next few months.

## *Pole Creek and Mason Lake Fields, Musselshell County, Montana*

Following the completion of No. 1 "Government-Kranzler" in January 1964 as the discovery well for the Pole Creek Field, an additional six wells were completed in the same Amsden dolomite reservoir of Pennsylvanian age at depths of just above 3,600 feet. High flow rates achieved on drill stem tests failed to sustain on prolonged production, and total field production from the seven wells is now about 200 barrels of 18 gravity oil per day, which is sold for \$1.68 per barrel.

A detailed seismic survey made of our 45,000-acre land block revealed several other structural closures along the anticlinal trend. No. 1 "Government-Hall," drilled to test one of these closures, was completed in July 1964 as a new field discovery which has subsequently been named the Mason Lake Oil Field. A follow-up well was also completed, and the two wells are currently producing approximately 140 barrels per day of 35 gravity oil from the Cat Creek sand of Cretaceous age. The oil is sold at \$2.57 per barrel. The eastern productive limits of this field are as yet undefined, and another well is programmed to be drilled in this direction.



*Occidental oil and gas fields serve 4 million-plus population center in Northern California.*

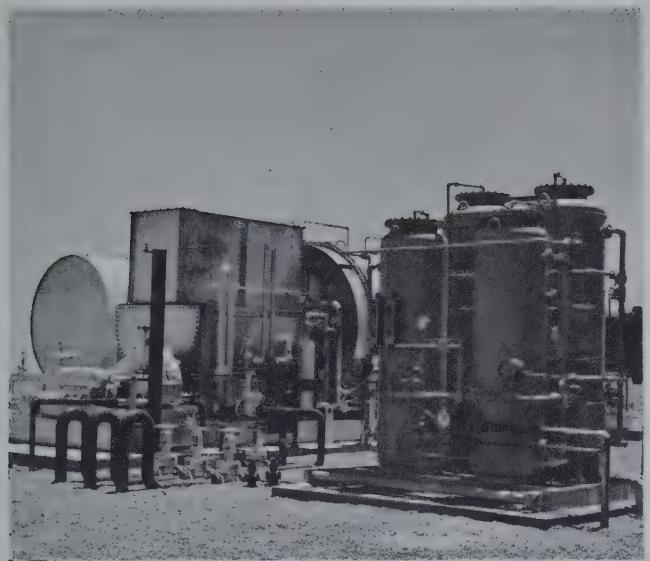
## *Enid Area, Anadarko Basin, Oklahoma*

A program undertaken in late 1963 with another oil company to develop 17,300 acres of leases in Alfalfa, Garfield, Grant, Kingfisher and Major Counties in the Anadarko Basin of Oklahoma was continued in 1964 with the result that a total of 33 wells have now been completed. These completions included one dual-zone and eight single-zone gas wells, four dual-zone and 14 single-zone oil wells, and six dual-zone oil and gas wells. Your Company's already substantial income from this field will be increased when several wells, now shut in, are connected to the pipeline.

## *Prospects in the Los Angeles Basin*

Historically, the Los Angeles Basin, in which our East Beverly Hills discovery is located, is the richest oil producing area in the world in terms of aggregate production per unit of surface area. As shown in the map on page 5, the 15 major oil fields discovered in the Los Angeles Basin have produced to date more than 5 billion barrels of oil and almost 6 trillion cubic feet of gas. As the metropolitan area expanded, many known geological structures were left untested or only partially developed. Recent new techniques of drilling under sound-proof and fire-proof conditions have opened up many of these areas to development, and Occidental has under lease a number of prospects which will be tested in the near future, including a downtown area offsetting present production by Standard Oil Company of California.

We also expect to institute steamflood operations on an old shallow field within the city limits.



Water softener (right) at site of Occidental's steamflood operation removes scale-forming minerals from water before conversion to steam by adjacent boiler at left.

#### Secondary Thermal Recovery Operations

During 1964 Occidental inaugurated five steamflood projects which are now commercial ventures. The first steaming operation was started in June 1964, and, because steam equipment could not be readily obtained, the remaining projects did not commence until the latter part of 1964. At the present time, we have a total of nine steam projects in operation and four additional in preparation. Equipment has been ordered to steam these properties and it is anticipated we will have 12 or 13 steam projects in operation by the middle of the year.

Since the initiation of our steam operations, the aggregate monthly oil production rate from the first five ventures has increased from 12,941 barrels in June 1964 to 71,195 barrels in February 1965. These projects are in their infancy and production will increase materially from now on. To bring a property up to its maximum oil producing rate normally requires at least eight to ten months after the operation is started.

In addition to the steamfloods, Occidental is currently evaluating the fireflood process in the Placerita Oil Field. Our fireflood pilot is composed of four producing wells surrounding one air injection well. In the steam process, thermal energy is generated at the surface in contrast to the fireflood where heat is released in the reservoir due to the combustion of a small portion of the oil in place. This type of project requires a larger capital investment than a steamflood and a much greater period of time for return of capital; however, it is anticipated that, where applicable, fireflooding will recover more oil and provide a greater return on investment than with the steamflood method.

We are also steaming in the Placerita area since we feel that, where possible, a greater rate of production and higher ultimate profit can be obtained from the application of both steam and fire on any single property.

The total target encompassed by our thermal operations at this time amounts to 600 million barrels of oil in place. During the year, we will continue to acquire additional properties suitable for thermal operations. We have already substantially added to our income and it is anticipated that much greater increases will occur, particularly during the second half of 1965 and throughout 1966.



Dramatic increases in oil production are being achieved by Occidental through secondary thermal recovery, as attested by these photographs taken at a recent company steamflood test. Left: normal flow of oil



from well before application of steam. Center: as well is steamed, excess vapor billows from pipe and oil begins to spurt. Right: steamflood fully implemented, oil now gushes from well.





*Eugene H. Walet, Jr.  
Group Executive Vice President,  
Sulphur and Petrochemicals*

#### SULPHUR AND PETROCHEMICAL DIVISION

##### *Jefferson Lake Sulphur Company*

Our acquisition of Jefferson Lake Sulphur Company in March 1964 has proved to be a particularly bright spot in your Company's diversification program.

Jefferson Lake Sulphur Company and its 69 percent-owned Canadian subsidiary, Jefferson Lake Petrochemicals of Canada Ltd., produce elemental sulphur, oil and gas, and petrochemicals in Texas and western Canada. Jefferson Lake's mine at Long Point Dome on the Texas Gulf Coast produces sulphur by the Frasch (hot water) process. Jefferson Lake's sulphur recovery plants in Tilden, Texas, and in the Calgary, Coleman, and Peace River natural gas fields of Western Canada extract sulphur from sour gas which is high in hydrogen sulphide. At Houston, Texas, Jefferson Lake manufactures cresylic acid and sodium sulphide, used in paper manufacturing, oil refining and ore flotation, and in the manufacture of plastics, cleaning compounds and TCP, an important additive to gasoline.

Quoting from our 1963 annual report, we stated that "Since the Iron Curtain countries, formerly exporters, are now buyers on the world markets, and because of the ever-increasing consumption of sulphur for fertilizer use, we believe that prices are on their way back towards their pre-1955 levels of approximately \$30 per ton." No statement could have been more prophetic. Entering the sulphur industry as we did, at a point when prices were at their lowest ebb in many years — having declined by about 40 percent since their high point in the mid-1950's — with inventories at excessive levels, we have seen a dramatic reversal of this situation in the few short months since Jefferson Lake began operating as a wholly-owned subsidiary of your Company. In 1964, total sales of elemental sulphur in the free world exceeded production by nearly one million tons. Sulphur, which was selling as low as \$17.50 per ton less than a year ago, has been sold in the export market at prices of upwards to \$31.50 per ton.

The sulphur industry's published prices have been raised substantially during the last eight months, and your Company believes that further increases will be forthcoming in the near future, which will at least restore sulphur to its 1955 price level.

1964 was the best of the past seven years for the Jefferson Lake companies. Jefferson Lake's sales of sulphur produced in the United States totaled 308,200 long tons compared with 281,300 tons in 1963, and sales of sulphur from Canadian plants operated by Petrochemicals totaled 403,200 tons in 1964 compared with 275,800 tons in 1963 — an overall increase for Jefferson Lake of 27.6 percent. During 1964, consolidated net sales of sulphur by Jefferson Lake, after deducting royalties and interests owned by others, exceeded one-half million tons.

Soon after we acquired Jefferson Lake, a program to increase reserves and producing capabilities was begun. The first step was a major expansion of facilities in Houston for the production of sodium sulphide which was completed in December 1964, increasing production of this material from 2,000 to 20,000 tons per year. Significant additions to our Houston chemical plants are also in progress, including an increase in cresylic acid production by about 35 percent, to a rate of 30 million pounds per year.

Additionally, Jefferson Lake Sulphur Company, under the capable leadership of its president, Eugene H. Walet, Jr., has under active study other prospects to acquire new sulphur reserves.

At its Calgary plants, Jefferson Lake Petrochemicals of Canada Ltd. has begun the first phase of an expansion program which ultimately will cost approximately \$15 million.

Petrochemicals acts as operator and owns approximately one-half of the working interest in about 80,000 acres of the Calgary Gas Field. Through Petrogas Processing Ltd., which Petrochemicals operates and in which it has a 31.5 percent ownership, natural gas is sold under contract to Westcoast Transmission Company Limited. Natural gas liquids are sold to Mobil Oil of Canada, and sulphur is marketed in North America by Jefferson Lake Sulphur Company, and overseas through Cansulex, an export company owned by Petrogas and two other Canadian sulphur producers. Sales of sulphur, gas, and plant products have shown a steady increase — sulphur sales in 1964 increased by more than 127,000 tons over 1963, up 46 percent — while Petrochemicals' net working interest share of total Calgary Field gas



Elemental sulphur and stabilized condensate are extracted from sour natural gas at Petrogas plant in Calgary Field, Alberta, Canada.

production in 1964 amounted to nearly 11 billion cubic feet and 170,000 barrels of condensate, representing increases of 15 percent and 11 percent, respectively, over 1963. For the year 1964, Petrochemicals' net working interest in total production was equivalent to 29.5 million cubic feet of gas per day and 603 barrels per day of oil and condensate. For the month of December 1964, Petrochemicals' daily production was approximately 31.4 million cubic feet of gas and 855 barrels of oil and condensate.

Petrochemicals and its other partners in Petrogas have programmed a \$5 million expansion of the Calgary plant to construct liquid petroleum gas (LPG) recovery facilities in order to separate and recover an estimated 1,000 barrels per day of liquefied propanes, 775 barrels per day of liquefied butanes, and 740 barrels per day of natural gasoline condensate, and to increase sulphur production to 870 long tons per day, an increase of 20 percent over 1964. Pipeline gas deliveries from the field will be raised to 150 million cubic feet per day.

A second phase of the expansion program, costing an estimated \$10 million, is planned for completion in 1966. This will further increase the total daily plant capacities, including sulphur, natural gas liquids, and pipeline gas.

Petrochemicals' president, Harold W. Manley, has estimated that after the expansion program is completed, the Petrogas complex will have daily production capacities of 190 million cubic feet of pipeline gas, 1,670 barrels of propane, 1,165 barrels of butane, 3,865 barrels of stabilized condensate, and 1,700 long tons of sulphur.

Petrogas has completed arrangements with a number of leading banks and insurance companies to provide for this expansion, which will not require any expenditure of Occidental's cash, nor will it add any debt to your Company's balance sheet.

In addition, Petrochemicals has under consideration the acquisition of new natural gas reserves in the Calgary area and elsewhere in Canada which would also add to your Company's reserves of sulphur.

The investing public has already acknowledged the enhanced values and potential yet to be realized by Petrochemicals, and Jefferson Lake Sulphur's approximately 69 percent common stock ownership in Petrochemicals now has a present market value of more than \$18 million, or about \$14.5 million greater than the value at which it is carried on our balance sheet.

During 1964, your Company decided it was to its advantage, for business as well as tax-benefit reasons, to divest itself of the stock of Jefferson Lake Asbestos Corporation acquired through the merger with Jefferson Lake Sulphur Company. Prior to the merger, Jefferson Lake had written off its investment in Asbestos, including loans and advances, which amounts were deducted from Jefferson Lake's net worth in determining the terms of the merger.



*Hugh S. Ten Eyck  
Group Executive Vice President,  
Fertilizers*

## FERTILIZERS AND AGRICULTURAL CHEMICALS

In our last annual report we discussed our aims and purposes in entering the fertilizer industry, stating it was our intention to become basic in the major elements of chemical fertilizers and to produce and market these products on a global scale. We are pleased to report the successful completion of many of these projects, which last year were only in the planning stage.

Your Company has come an amazingly long way in the 18-month period since our initial acquisitions in this industry. Occidental was one of the first oil companies to diversify into fertilizers and agricultural chemicals. Since that time we have been followed by many of the major oil companies which have acquired old established firms in this field.

Occidental is still the only company which has its own basic supply of three of the four principal fertilizer elements, including sulphur, ammonia (nitrogen) and phosphates. We are studying several proposals to acquire potash reserves, the fourth principal fertilizer raw material.

Late in 1964 we aligned our fertilizer subsidiaries into one unit under H. S. Ten Eyck, who has been appointed Group Executive Vice President for Fertilizers. This includes The Best Fertilizers Co. (California), The Best Fertilizers Company (Texas), Occidental Corporation of Florida, and Interore. With the establishment of the Occidental Fertilizer Group, we can now coordinate our production and marketing facilities to best advantage. Our objective is to produce raw or semi-finished materials at points of origin, to move these products to the consuming markets in the most concentrated form possible, and to convert them there into end products ready for consumer demand. Occidental Research and Engineering Corporation (ORE), directed by Dr. Ernest Csendes, Executive Vice President for Research, Engineering and Development, is closely aligned to the group operations, providing coordination for inter-company product development and market feasibility, as well as directing our superphosphoric acid project, discussed below.

As part of the program, we have concluded an agreement with the Saudi Arabian Government under which a feasibility study has been commenced for the construction of a plant to produce a minimum of 600 tons per day of anhydrous ammonia. This project is headed by Frank W. Wilson, an international authority on ammonia plant construction and operation, who has joined Occidental's staff. On the basis of preliminary estimates, the plant, including necessary off-site improvements and pipelines, will cost approximately \$20 million, all of which will be furnished by Petromin, an agency of the Saudi Arabian Government. Natural gas will be furnished to the project without cost until 1984. Occidental will supervise the awarding of the engineering and construction contracts and the managerial staff for the operation of the plant. For these services we will receive 10 percent of the net profits for a period of 20 years. Interore will market the output of the plant, receiving 5 percent of the sale price of the products.

Your Company's process for the manufacture of superphosphoric acid has been proved a commercial success by operations of our plant at Lakeland, Florida. Our negotiations with the Government of Morocco for the construction of a superphosphoric acid plant in that country are proceeding as planned, and, since we have successfully produced superphosphoric acid in Florida from trial shipments of Moroccan phosphate rock, the second phase of our agreement is expected to become effective shortly. This provides for the construction of a superphosphoric acid plant in Morocco to be owned jointly by Occidental and the Moroccan Government. Under our agreement, a minimum of 5 million tons of phosphate rock per year will be made available for a 99-year period. Initial production capacity of the plant is expected to be about 1,000 tons per day, to be increased in stages to at least 5,000 tons per day. This should enable us to cover markets geographically convenient to the Saudi Arabian source of ammonia as well as to Moroccan phosphates.

Our phosphate rock mine in northern Florida, discussed elsewhere in this report, will begin operation during 1965.

We are currently negotiating with partners for the construction of a large ammonia plant located on deep water in the Gulf of Mexico area to complement our phosphate rock and acid production, which will give us, in the Western Hemisphere, the same balance of nitrogen and phosphate production that we plan to have in the Middle East and North Africa. Production from these locations will enter both the domestic and international markets with our own products and provide us with complete geographic coverage of the markets we now supply.

Acquisitions are also being studied in order to extend our domestic sales northward from the Flor-

ida and Texas areas, and east and northward from the California area where we are now marketing fertilizer products. Additionally, we will be able to expand in these markets based, among other factors, on our ability to supply a range of new high-analysis material made from our superphosphoric acid. These products will be of lower cost and of considerably higher agronomic value than materials currently available.

#### The Best Fertilizers Companies

Never before in the 32-year history of The Best Fertilizers companies has so much new construction been accomplished in a single year. With the expansion of Best of Texas into Arizona last year, Best products became available to consumers from the Mississippi River to the Pacific Ocean and north from Texas into Kansas and Colorado.

During 1964, the first full year the Best companies operated as wholly-owned subsidiaries of Occidental, more than \$8.5 million was invested in new Best plants and storage facilities. As a result of this expansion, Best of California's anhydrous ammonia production capacity at its Lathrop plant has been substantially increased. Total tonnage capacity of all products has risen from 1,460 to 2,440 tons per day, an increase of 67 percent. Storage capacity of anhydrous ammonia has been more than tripled to 22,000 tons, and storage for bulk products increased by 30,000 tons. This will permit year-round plant operation for the first time.



ORE Project Manager Frank Wilson (fourth from left) meets with officials of Saudi Arabian government on proposed site for ammonia plant. Flanking Wilson are (left) Essam Alireza, vice governor of Petromin, and (right) Dr. A. H. Taher, Petromin governor.

At Plainview, in the Texas Panhandle, Best of Texas has constructed and placed in operation an entirely new fertilizer complex with a total plant capacity of 1,090 tons per day, including almost 150 tons per day of anhydrous ammonia. This plant raises the total production capacity of our Best of Texas subsidiary to 1,490 tons per day, nearly three times what it was a year ago. In Texas also, product storage capacity is sufficient to permit continuous plant operations.

These new facilities in Texas and California came into production at various times during 1964, and thus their full impact on sales and profits will not be felt until 1965.



*First truckload of liquid nitrogen produced by The Best Fertilizers' ammonia plant at Lathrop leaves for use in the Best Express controlled atmosphere program to preserve fruits, vegetables and other perishable produce during shipment.*

The California grower, operating almost exclusively under irrigation conditions, is perhaps the most sophisticated in the world as to his requirements for agricultural chemicals. More than 15 years ago, Best of California introduced the West's first premium fertilizers, and since then has developed a line of high-yield products, prescription formulated to particular crop and soil conditions. Our new products division is continually developing blends and combinations to fit the increasingly specialized needs of the Western farmer. In addition to a complete line of fertilizers and soil conditioners, Best manufactures and distributes about 250 separate formulations of insecticides, fungicides, herbicides and nematocides. Sales volume of these products increased 44 percent over 1963. Special emphasis is being applied to the highly profitable urban commercial market where Best's Garden and Lawn Division markets more than 70 products.

Notwithstanding an unforeseen delay in commencement of production from the Plainview plant, which caused us to miss the spring growing season, Best of Texas had a good year. A joint effort with Interore made it possible for Best to enter the export market with ammonium sulphate and mixed fertilizers produced in Plainview and Houston during a period when domestic business was slow. As a consequence of the intensely short supply of fertilizers in the world market, Interore provided a very profitable outlet for these products.

Plainview's sales effort centered around the establishment of dealer outlets which reached 350 by year-end. An intensive campaign resulted in Best's selling 20 percent of the total tonnage of superphosphate sold in the entire state of Texas. All ammonia production for 1965 has already been sold, and we plan further to increase the rated capacity of the plant in the near future.

In many areas of Texas and the Southwest, application of high-analysis fertilizers has only begun to gain wide-spread acceptance. In preparing to enter these markets, Best organized its sales group around a number of technically skilled and scientifically trained agronomists and soil experts in order to introduce the farmers to the benefits of specialized programs of soil enrichment.

Best's cryogenics development in the shipment of fresh fruit and vegetables in a nitrogen gas atmosphere was further tested during the year, and commercial application commenced with the placing into service of 50 new refrigerated vans for shipment of perishable produce, such as lettuce, asparagus and strawberries to Eastern markets.

When fresh produce is shipped in an "inert" nitrogen gas atmosphere (with most of the oxygen excluded), respiration is reduced so low that such produce is essentially "put to sleep." The obvious benefit is that perishable foods may be shipped great distances to market and arrive in almost field-fresh condition.

The results of this year's operation have been good, and in some situations spectacular. We predict a great growth opportunity for the Best Express Division of the company, which has a sizeable expansion planned for 1965. A basic patent for this new process is expected shortly.

#### *International Ore & Fertilizer Corporation (Interore)*

During 1964, Interore added to the number of foreign offices and operations maintained throughout the world, and now has branches in 27 countries and operates in more than 60. This world coverage provides for the effective implementation of the requirements of the Fertilizer Group.

Trading operations during 1964 were very successful, and the year ended as one of the best in Interore's history, with sales exceeding \$82 million. Total tonnage sold and shipped surpassed that of any previous year, amounting to more than three million tons of all products.

Despite the scarcity of all fertilizer materials, Interore actually increased sales over previous years by as much as 50 percent on some items. Purchases of materials were made from such new locations as Mexico, Pakistan, Iran and Venezuela. Shipments were made to consumer markets throughout the world. Of particular note were increased sales to consumers and wholesalers in various Latin American countries by establishing local marketing organizations and penetrating these markets to a greater extent than ever before.

As we originally anticipated, Interore has added great strength to our fertilizer producing subsidiaries, marketing Best's fertilizers and Jefferson Lake's Canadian sulphur. We feel confident in saying that your Company's production of fertilizer and agricultural chemicals, wherever situated throughout the world, will be profitably disposed of by our Interore sales organization.

Extending Occidental's long-range program for the production of raw materials, Interore moved ahead with plans for fertilizer production in satellite plants to be located so as to provide maximum



*International Ore & Fertilizer Corporation (Interore) foreign sales offices*

Argentina ● Australia ● Brazil  
 ● Canada ● Chile ● Costa Rica ● England ● France  
 ● Germany ● Greece ● Hawaii ● Hong Kong ● India  
 ● Italy ● Japan ● Korea ● Lebanon ● Mexico ● Malaysia ● Nicaragua ● Pakistan ● Philippines ● South Africa ● Spain ● Taiwan ● Turkey ● Uruguay  
 ● Venezuela

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marketing advantages. The current construction of a granulating and blending plant in Nicaragua is part of the over-all plan.

To further supplement Interore's supplies of fertilizers for the heavy consumption areas of the world, negotiations in several developing areas were initiated for long-term arrangements with government and private groups which are planning to build fertilizer plants. In return for assistance in providing for all aspects of plant construction, Interore will obtain exclusive marketing rights of export tonnages. Whenever foreign investments are contemplated, your Company's policy will be to secure appropriate guarantees by the United States Government.

Besides the Moroccan and the Saudi Arabian ventures previously discussed, we have in process a number of additional foreign fertilizer projects. In Nicaragua, construction is underway on a fertilizer complex which will be owned jointly by a subsidiary of your Company and a group of local interests. We expect to complete the first phase of the project shortly. Initial capacity of the plant will be at the rate of 75,000 tons per year of mixed fertilizers, and it is estimated that most of the output will be consumed in Nicaragua, with the balance to be exported. In addition to providing the first fertilizer plant in that country, we will also furnish a complete agro-nomic service to its farming industry.

In Venezuela, agreements have been completed by Interore and the *Corporación Venezolana de Guayana*, public authority of the Venezuelan Government, for the formation of a joint-venture corporation to study and develop a multimillion-dollar chemical complex in the Guayana region. This region

is considered one of the richest natural resource areas, not yet fully developed, in the world with vast sources of low-cost natural gas and hydroelectric power. Several other United States firms, including United States Steel Corporation, Bethlehem Steel Company, and Phillips Petroleum Company, are also engaged in long-range projects in this area. Feasibility studies for the production of elemental phosphorus, caustic-chlorine, phosphate chemicals, ferro-alloys and fertilizers, including ammonia, have been under way for several months and are nearly complete.

During 1964, your Company conducted negotiations with the government of the USSR in conjunction with associated companies in Great Britain concerning a program of fertilizer plant construction and fertilizer sales. A letter of intent was received from the government of the USSR, and cost studies and plant design proposals are in the process of preparation. Financing is to be supplied by the British Government. Any required approval of the United States Government will be obtained before commitments are made.

In Singapore, a granulating and blending plant is projected, and dock construction has been completed by the Malaysian agencies concerned.

Interore, with its extensive international marketing organization as part of the Occidental group, is in a singular position to maintain its leadership in the dynamic developments of the fertilizer world of the future. In connection with the balance of payments problems facing our government today, we wish to note that Interore's contribution in earning dollars abroad through its export sales has been substantial.

Interore has recently moved into expanded offices in the J. C. Penney Building, 1301 Avenue of the Americas, New York City, where your Company's New York office and Jefferson Lake Sulphur Company's New York sales office are also located.

In our last progress report, we advised you that we would be able to make a definite announcement regarding our gold deposit in Montana, sometime in October of last year. Unfortunately, severe weather came unusually early last year and prevented us from completing our testing program at that time. Our geologist specially retained to evaluate this prospect has recently reported that there are not sufficient quantities of ore in our present holdings to justify the investment necessary for commercial development. Therefore, your Company has decided to discontinue further prospecting.

#### *Occidental Research and Engineering Corporation (ORE)*

The achievement of your Company's subsidiary, ORE, in the development of superphosphoric acid is potentially the most important single accomplishment of the fertilizer group during 1964. Dr. Ernest Csendes, Executive Vice President, and W. R. Mustian, Jr., Director of Research for ORE, together with the talented group of scientists working in the ORE Division at Lakeland, Florida, have done an outstanding job.

In producing blended fertilizers, the soil nutrient phosphorus (phosphoric pentoxide— $P_2O_5$ ) is added in the form of phosphoric acid (54%  $P_2O_5$ ), which is highly corrosive and extremely difficult to handle. It is customary practice to transport the rock (31%  $P_2O_5$ ) to fertilizer plants throughout the world for conversion into acid, resulting in very high transportation costs per unit of  $P_2O_5$ , since 69 percent of the rock is virtually waste material. It has been the dream of the industry to produce a highly concentrated acid (approximately 80%  $P_2O_5$ ) which would be non-corrosive and which could be transported from the mine location in its final form.

Last year, we announced our intention to develop a process for the manufacture of highly concentrated superphosphoric acid (approximately 80%  $P_2O_5$ ), and through a British company, Nordac, Limited, we have obtained the world-wide rights to a patented process for the manufacture of this material. After an encouraging pilot operation in England, we constructed a plant at Lakeland, Florida, to test this process on a larger scale. The plant, which came on-stream in November 1964, was originally expected to produce a maximum of 50 tons per day of superphosphoric acid. We are pleased to report that it has far exceeded our initial expectations by producing superphosphoric acid of approximately 80%  $P_2O_5$  at a rate of about 150 tons per day. On

the basis of the highly favorable results produced by this plant, we intend to include enlarged facilities for the manufacture of phosphoric acid at our planned fertilizer complex in Hamilton County, Florida, some of which will be converted into superphosphoric acid at Lakeland, Florida. The Lakeland plant will be enlarged to meet the increased demands for superphosphoric acid.

Your Company's research department has achieved initial success in combining these materials with other fertilizer elements, and it is anticipated that revolutionary new blends of fertilizers will result from such combinations.

The potential of this process is enormous for a number of reasons. First, in contrast to conventional acid our superphosphoric acid is relatively non-corrosive and can be readily transported and stored. Second, its concentration of  $P_2O_5$  is more than two and one-half times that of phosphate rock, so that great savings in freight, storage and handling per unit of  $P_2O_5$  will result from the use of our material. Third, users of our superphosphoric acid will not



Hon. Mohammed Laghzaoui, Director General of the Office Cherifien des Phosphates, Rabat, Morocco, shows G. Mennen Williams (seated), Assistant Secretary of State, Bureau of African Affairs, a sample of superphosphoric acid produced at Occidental's Lakeland, Florida, plant from Moroccan phosphate rock.

have to invest large sums of money in constructing expensive phosphoric acid plants, since our superphosphoric acid can be combined with ammonia and potash to produce mixed fertilizers with relatively inexpensive conversion equipment. Fourth, the highly concentrated blends of fertilizers will function more efficiently, thus reducing the over-all cost of fertilizers to the farmer. This will open up vast new markets in under-developed countries which up to now have not been able to afford chemical fertilizer

plants. Over the years this should have a tremendous beneficial effect on the problem of feeding the world's burgeoning population.

A recent report by Stanford Research Institute confirms that ours is the only plant in the world manufacturing superphosphoric acid with a P<sub>2</sub>O<sub>5</sub> concentration of 80 percent plus. There are some plants producing approximately 70 percent P<sub>2</sub>O<sub>5</sub> phosphoric acid by another process which is less economic and requires a much larger capital investment. Because of this, very little progress has been made in the development of this other process.

In addition to its development of superphosphoric acid for general fertilizer use, ORE's staff has been able to produce by our low-cost wet process a high quality superphosphoric acid containing no organic impurities and less than 1 percent iron and aluminum oxide. This high quality acid serves as a source of P<sub>2</sub>O<sub>5</sub> for those products which require the use of a clean, clear liquid. Acid of this quality formerly was available only from expensive, furnace-grade acid, or by a costly treatment of wet process acid. This new product should find broad usage in industrial phosphate applications and also in high-analysis liquid fertilizers.

We have under consideration inquiries from several other companies who wish to purchase or license our process for the manufacture of superphosphoric acid. However, we are contemplating the feasibility of leasing superphosphoric acid equipment to other companies for installation at their manufacturing sites, rather than licensing or selling our valuable process.

The Nordac process and equipment design is covered by world-wide patents which your Company controls, and our patent attorneys assure us that we have adequate protection and do not infringe on any other patents or processes.

#### *Suwannee River Phosphate Mine, Hamilton County, Florida*

Occidental Corporation of Florida, a wholly-owned subsidiary of Occidental Petroleum Corporation, was formed on February 2, 1964, with John M. Harris as president. For many years Mr. Harris operated the phosphate mine and chemical fertilizer complex of Davison Chemical Company (a division of W. R. Grace & Co.) in the Bartow area of Central Florida. The functions of the new Occidental subsidiary include the exploration and mining of phosphate rock deposits and their conversion into chemical fertilizers for both domestic and foreign use.

After conducting a comprehensive testing and coring program on the H. A. Black tract in northern Florida, we purchased this deposit on September 1, 1964, from Continental Can Company. The purchase price is payable on a minimum royalty basis as the

rock is mined. Exploration of the properties by your Company and others was supplemented by independent evaluations made by Arthur D. Little, Inc., a leading consulting research firm in this field. These evaluations indicated that there are approximately 29 million net tons of recoverable phosphate rock in the 5,300-acre tract having a BPL (bone phosphate of lime) content averaging 72.6 percent.

Construction of a recovery plant, a drying plant, and a dry-storage and shipping facility is underway by Dorr-Oliver Company, with a guaranteed completion date of July 28, 1965.

We are completing arrangements for the construction of port facilities at Jacksonville. When these facilities are installed we will be the only phosphate producer shipping from the port of Jacksonville, which should result in freight savings to our customers in the eastern United States, Canada, and Europe.

The opening of the mine took place in mid-October; and at a dedication and ground breaking ceremony on October 31, the Hamilton County operation was officially named the "Suwannee River Mine." By the end of the year the concrete tunnel and most of the footings for the recovery plant and the dry rock storage facility had been completed.

The plant design incorporates conventional proved equipment and processes. Estimated initial capacity on a five-day work-week schedule is 1 million tons a year, and 1.4 million tons per year on a seven-day work week, with provisions for expansion to 2 million tons per year.

A financing program was successfully carried out consisting of the sale of an aggregate of \$10,110,000 industrial 4½-percent bonds by a non-affiliated corporation organized to promote development of Hamilton County. This provided for the construction of the mine and beneficiation plant without the use of Occidental's funds.

Contiguous with the Black tract property, we have under option approximately 25,000 additional acres of potentially productive phosphate lands on which we have started a prospecting program. To date, we have cored and tested about 1,000 acres of this property and have established additional reserves of at least 9 million tons. If these results continue, we may more than triple our present high-grade phosphate reserves. The marketing situation for phosphate rock has firmed up to the point that material is now in very short supply. World prices rose by approximately \$1.25 per ton in mid 1964, and further increases are expected during 1965.

In addition to the mine and beneficiation plant already in construction, we plan to build a chemical fertilizer complex at this site which would supply our present customers, both domestic and foreign, with a complete line of chemical fertilizers.

*S. V. Hunsaker  
Chairman of the Board,  
S. V. Hunsaker & Sons, Inc.*



#### HOME BUILDING

*S. V. Hunsaker & Sons, Inc.*

In July 1964, your Company made an investment in the profitable California home building field through the acquisition of S. V. Hunsaker & Sons, Inc. (Hunsaker) in exchange for 160,938 shares of capital stock. This firm, founded and headed by S. V. Hunsaker, Sr. and his two sons, Richard Hunsaker and S. V. Hunsaker, Jr., has engaged in the construction and sale of medium priced residences and apartments in Southern California for about 33 years. At the time of acquisition by Occidental, it was the fifth largest publicly owned home building firm in the country. Its revenues have increased from \$11.2 million in 1961 to \$43.5 million in 1964.

The Hunsaker company has proved to be one of our best investments. In 1964 our home building subsidiary contributed approximately \$3 million to consolidated earnings, returning in its first year approximately two-thirds of Occidental's initial investment. With the population explosion continuing, profits should increase as Hunsaker moves forward to supply the housing needs of Southern California's ever-growing population.

In the Hunsaker company, as in all of our previous acquisitions, Occidental has acquired top-notch management with know-how. S. V. Hunsaker and his two sons are continuing as executives of this subsidiary. Hunsaker markets its residences through its own sales organization, and its *Sunshine Home* developments have become a hallmark of first-class construction at reasonable prices.

According to statistics compiled by Security First National Bank in its Southern California Report, new in-migrants came to Southern California during 1963 at the rate of nearly 2,000 per day, with births accounting for 674 more each day. The family units represented by these new additions create a steady flow of potential customers for Hunsaker's *Sunshine Homes*. Hunsaker will continue to emphasize home construction in the medium-price range, where the bulk of this population increase is centered.

Occidental's first step after the acquisition of S. V. Hunsaker & Sons was the replacing of Hunsaker's high-interest loans with credit at prevailing bank rates. This will be an important factor in the future profits from this company. Additionally, the liability resulting from Occidental's guarantee of Hunsaker's contingent liabilities assumed at the time of acquisition has been substantially reduced and will be eliminated, for all practical purposes, within the next few months. Hunsaker's contingent liability with respect to residential sales arises only in the unlikely event that, in case of default by a purchaser, the proceeds realized from sale of the property would be less than the amount of the mortgage. In the opinion of counsel of your Company, such a contingency is only remotely possible. Moreover, the possibility of obtaining a deficiency judgement against Hunsaker is most unlikely under California law.



Attractively landscaped and furnished model dwellings, in a wide variety of floor plans and exterior stylings, are featured at S. V. Hunsaker & Sons, Inc., Sunshine Homes developments throughout Southern California.

## CONCLUSION

In 1964, Occidental had the greatest year of growth since its reorganization by present management seven years ago. Our total assets have grown from \$1.9 million at the beginning of 1958 to \$113 million at the close of 1964. With the proceeds from the recent rights offering, our assets have increased to \$134 million. Including the assets of our unconsolidated subsidiaries (Interore and S. V. Hunsaker), the total assets of your Company have grown to approximately \$200 million. These are book values and do not reflect the true value of the Company's reserves of oil and gas, sulphur, and phosphate rock.

During the same seven years, shareholder's book equity has grown from \$1.2 million to \$69 million (including proceeds from the recent rights offering). Gross annual revenues have increased from \$665,000 in 1958 to \$45 million in 1964. Including the sales of Interore and S. V. Hunsaker & Sons, the total gross revenues in 1964 were \$171 million. Earnings have increased just as dramatically during this seven-year period from \$92,130, or 3c per share, in 1958, to \$9,381,000, or \$1.48 per share, in 1964.

Our recent rights offering to our shareholders was very successful with 98.5 percent of the offering exercised. I am happy to report that every executive officer and director exercised his rights. The underwriting group, headed by Lehman Brothers, Allen and Company Incorporated, and Reynolds and Co., consisted of 53 leading banking and brokerage firms from every part of the country. Lehman Brothers advised us that this was one of the most successful rights offerings in which they had ever participated. This speaks well for the loyalty of our shareholders and the public acceptance of our securities. This offering added \$21,270,000 net to our treasury, enabling us to proceed with our plans for the expansion and new products discussed in this report. Our working capital has grown on a comparative basis from \$12.4 million on December 31, 1963 to \$30.5 million (after the rights offering) with a current ratio of 3 to 1.

During the past year, your Company's executive staffs were strengthened through the addition of new personnel and through several organizational changes. One important benefit has been to free your president from the pyramiding administrative duties of his office.

Our enlarged foreign operations and ventures with foreign governments have made it desirable for your president to travel abroad at frequent intervals. The functions and duties of our Senior Executive Vice President, E. C. Reid, have been broadened to enable him to substitute for the President in his absence. We have recently secured the

services of Charles B. McCabe as executive administrative representative in our New York office. Mr. McCabe is a widely-known and experienced executive, having been for many years publisher of the New York *Daily Mirror*. He will provide your Company with expert representation in the East, particularly in connection with acquisitions and business development.

Thomas Wachtell continues to serve as executive assistant to the president in the Los Angeles office.

In mid-1964, Dorman L. Commons was appointed financial vice president. Mr. Commons was formerly senior vice president of Douglas Oil Company (a subsidiary of Continental Oil Company) and brings to Occidental his widespread knowledge and experience in the field of financial management. Mr. Commons is ably assisted by Charles J. Lee, corporate controller, formerly Western Division controller for Tidewater Oil Company. Last November, Lawrence E. Scott was appointed a vice president of your Company to act in the area of new acquisitions. Mr. Scott is an attorney, and was formerly an executive of Pauley Petroleum, Inc. and Standard Oil Company of California.

Walter N. Maguire resigned from the Board of Directors due to his health after several years of distinguished service. His vacancy was capably filled by the election of Dr. Louis A. Rezzonico, a director and member of the executive committee of the Pepsi-Cola Company, and a substantial stockholder of your Company. In November, S. V. Hunsaker, Sr. was elected to the Board.

The number of our shareholders has increased by approximately 10,000 over the past year, reaching about 33,000 at year-end. Many became Occidental shareholders as a result of the mergers with Jefferson Lake Sulphur Company and S. V. Hunsaker & Sons, Inc. Stockholdings by officers and key employees also increased during the year, and the powerful incentive of employee ownership is reflected in

every phase of our operations. Your management and Board of Directors are proud to salute our loyal employees, without whose zeal and dedication the achievements of the past year would not have been possible. We have under study and will shortly adopt a comprehensive plan of pensions, insurance and employee benefits on a Company-wide basis.

Payment of dividends, commenced in 1962, was continued during 1964 at the same rate as in previous years, namely, 50¢ per share cash and 4 percent stock, and your Board of Directors will, prior to the annual meeting scheduled for May 4, 1965, take under consideration the matter of establishing a regular dividend policy for your Company, and of increasing the amount of the cash dividend.

Occidental was again honored for the third consecutive year with the Certificate of Merit of the United Shareowners of America.

Corporate expansion along all fronts has been the keynote of 1964, and we look forward to 1965 and beyond with the confidence that per-share profits will continue to increase above the 1964 levels from the new projects coming into production including several new or increased areas of oil and gas income.

We are happy to receive your letters and suggestions and appreciate your expressions of confidence and good will.

By order of the Board of Directors,



ARMAND HAMMER, President,  
and Chairman of the Board

MARCH 26, 1965



**FIVE-YEAR STATISTICAL SUMMARY**  
Includes Operations of Consolidated Subsidiaries

	1960	1961	1962	1963	1964
<i>Amounts in thousands of dollars</i>					
Oil and Gas Sales, excluding sales of gas production payments (see note to financial statements) .....	\$ 1,578	\$ 1,859	\$ 3,019	\$ 5,222	\$ 6,407
Fertilizer Products Sales .....	12,412	15,579	18,634	22,359	27,189
Sulphur and Chemical Sales .....	9,403	8,426	8,636	8,247	9,666
Contract Drilling Revenue .....	1,729	2,796	4,540	1,481	593
Other Operating Income .....	528	611	998	1,482	1,315
Gross Income .....	<b>\$ 25,650</b>	<b>\$ 29,271</b>	<b>\$ 35,827</b>	<b>\$ 38,791</b>	<b>\$ 45,170</b>
Net income (excluding income from production payments - see note 5 to financial statements) .....	\$ 837	\$ 2,712	\$ 2,800	\$ 3,921	\$ 9,381*
Income from production payments .....	— —	929	5,478	3,882	— —
Total Net Income .....	<b>\$ 837</b>	<b>\$ 3,641</b>	<b>\$ 8,278</b>	<b>\$ 7,803</b>	<b>\$ 9,381</b>
Per Share (1)					
Excluding income from production payments ..	\$ 0.16	\$ 0.49	\$ 0.49	\$ 0.64	\$ 1.48*
Income from production payments .....	\$ — —	0.17	0.96	0.63	— —
Total .....	<b>\$ 0.16</b>	<b>\$ 0.66</b>	<b>\$ 1.45</b>	<b>\$ 1.27</b>	<b>\$ 1.48</b>

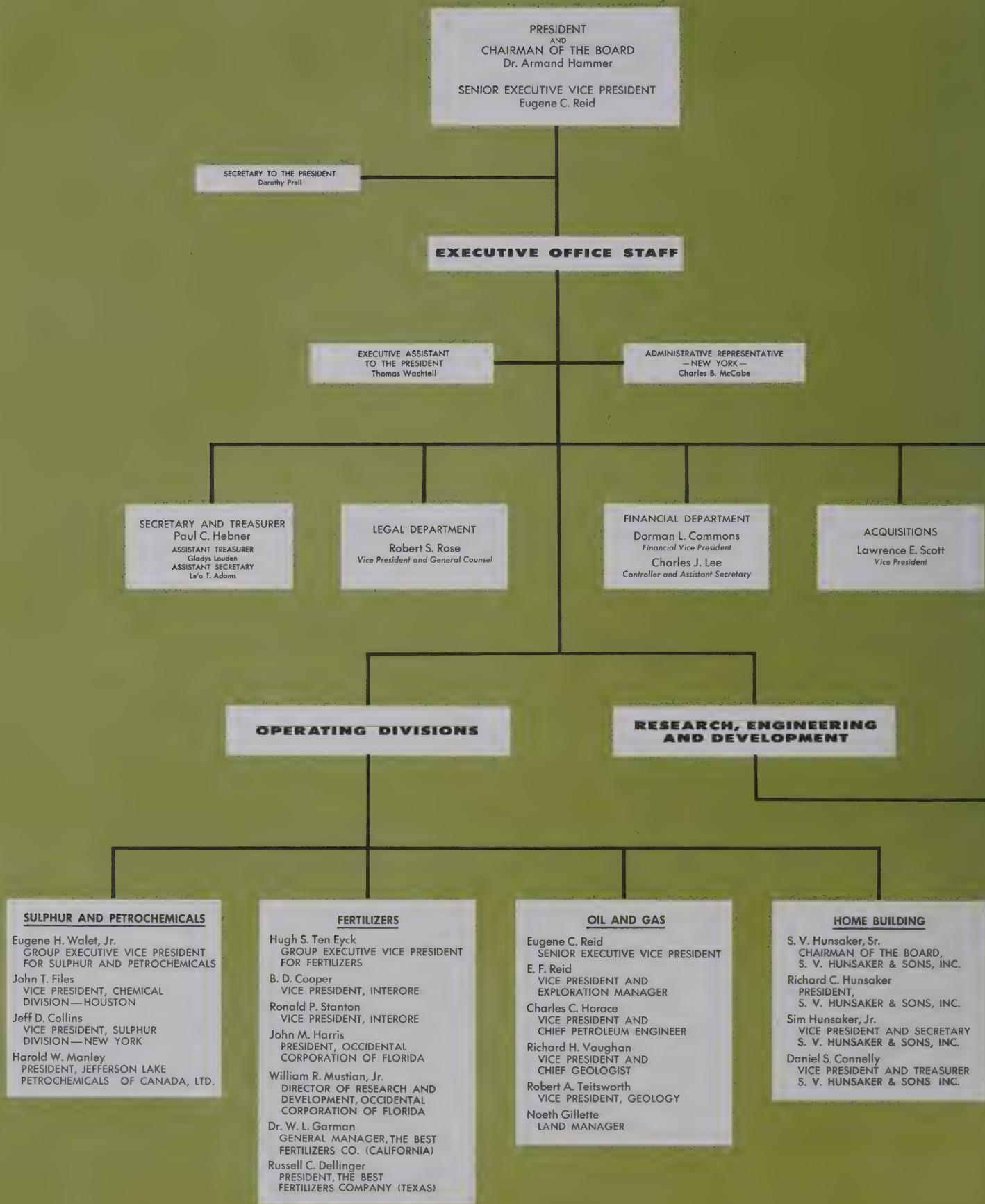
(1) Based on average number of shares outstanding after giving retroactive effect to (a) 4% stock dividend declared in December 1962, and issued in January 1963, (b) 4% stock dividend declared in December 1963, and issued in January 1964, and (c) the issuance of capital stock in connection with the pooling of interests with Signet Oil and Gas Company in 1961, The Best Fertilizers companies in 1963, and Jefferson Lake Sulphur Company and S. V. Hunsaker & Sons in 1964.

\*Includes tax benefit of \$2,476,000, equivalent to \$0.39 per share (see Note 2 to financial statements).

**SEVEN-YEAR SUMMARY OF WELLS AND FOOTAGE DRILLED**

	1958		1959		1960		1961		1962		1963		1964*	
	No. of Wells	Total Footage	No. of Wells	Total Footage	No. of Wells	Total Footage	No. of Wells	Total Footage	No. of Wells	Total Footage	No. of Wells	Total Footage	No. of Wells	Total Footage
Gas Wells Completed	6	32,745	5	30,641	9	61,192	17	124,490	26	189,528	20	175,663	32	259,001
Oil Wells Completed	—	—	1	3,909	6	10,248	18	29,629	4	13,950	28	89,521	74	325,047
Dry Holes .....	—	—	7	40,273	10	74,395	20	153,432	44	319,176	57	405,852	63	488,316
<b>TOTAL</b> .....	<b>6</b>	<b>32,745</b>	<b>13</b>	<b>74,823</b>	<b>25</b>	<b>145,835</b>	<b>55</b>	<b>307,551</b>	<b>74</b>	<b>522,654</b>	<b>105</b>	<b>671,036</b>	<b>169</b>	<b>1,072,364</b>

\*First year Occidental ever drilled one million feet of hole — more than 200 miles.



# Occidental Petroleum Corporation



Dr. Armand Hammer



Eugene C. Reid



Dorothy Prell



Thomas Wachtell



Charles B. McCabe



Paul C. Hebner



Robert S. Rose



Dorman L. Commons



Charles J. Lee



Carl W. Blumay



George C. Bevel, Jr.



Gladys Louden



Le'o T. Adams



Eugene H. Walet, Jr.



Hugh S. Ten Eyck



Eugene C. Reid



S. V. Hunsaker, Sr.



Dr. Ernest Cséndes



John T. Files



B. D. Cooper



E. Z. Reid



Richard C. Hunsaker



James R. Colvin



Jeff Collins



Ronald P. Stanton



Charles C. Horace



Sim Hunsaker, Jr.



Victor E. Kuegmann



Harold W. Manley



John M. Harris



Richard H. Vaughan



Daniel S. Connelly



Philip Cosperson



William R. Messian, Jr.



Dr. W. L. Garman



Robert A. Tidsworth



Noeth Gillette



Frank W. Wilson

## PUBLIC RELATIONS

**Los Angeles:** Carl W. Blumay  
**New York:** George C. Bevel, Jr.

## OCCIDENTAL RESEARCH AND ENGINEERING (ORE)

**Dr. Ernest Cséndes**  
EXECUTIVE VICE PRESIDENT

**James R. Colvin**  
VICE PRESIDENT AND  
EXECUTIVE DIRECTOR

**Victor E. Kuegmann**  
DIRECTOR OF  
ECONOMIC DEVELOPMENT

**Philip Cosperson**  
DIRECTOR OF  
TECHNICAL DEVELOPMENT

**Frank W. Wilson**  
PROJECT MANAGER,  
SAUDI ARABIA

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

ASSETS	Historical			Pro Forma 1964 Including Proceeds from Rights Offering (Unaudited) (Note 15)
	1964	1963 (Note 2)		
(Amounts in thousands)				
<b>CURRENT ASSETS:</b>				
Cash .....	\$ 8,211	\$ 10,612	\$ 24,481	
Marketable securities, at cost .....	186	562	186	
Receivables—				
Trade, net of reserves .....	9,656	6,828	9,656	
Due from affiliated companies .....	2,613	1,338	2,613	
Advances to joint ventures and amounts due from participants .....	1,773	1,043	1,773	
Inventories, at the lower of average cost or market (Note 12) .....	8,285	6,298	8,285	
Prepaid expenses .....	400	352	400	
Total current assets .....	<u>\$ 31,124</u>	<u>\$ 27,033</u>	<u>\$ 47,394</u>	
<b>INVESTMENTS IN AND ADVANCES TO UNCONSOLIDATED SUBSIDIARIES AND AFFILIATED COMPANIES (Notes 1 and 2):</b>				
S. V. Hunsaker & Sons, Inc.—				
Investment .....	\$ 7,541	\$ 4,668	\$ 7,541	
Advances .....	4,681	—	9,681	
International Ore & Fertilizer Corporation—				
Investment .....	3,176	2,877	3,176	
Advances .....	817	—	817	
Other—				
Investments .....	728	655	728	
Advances .....	372	627	372	
	<u>\$ 17,315</u>	<u>\$ 8,827</u>	<u>\$ 22,315</u>	
<b>PROPERTY, PLANT AND EQUIPMENT (Notes 3 and 6), at cost:</b>				
Oil and gas operations .....	\$ 46,476	\$ 29,926	\$ 46,476	
Manufacturing and sulphur operations .....	37,807	31,331	37,807	
	<u>\$ 84,283</u>	<u>\$ 61,257</u>	<u>\$ 84,283</u>	
Less—Reserves for depreciation, depletion and amortization .....	24,628	22,213	24,628	
	<u>\$ 59,655</u>	<u>\$ 39,044</u>	<u>\$ 59,655</u>	
<b>OTHER ASSETS:</b>				
Deferred financing costs less amortization (Note 4) .....	\$ 505	\$ 364	\$ 505	
Preoperating expenses, project development costs, etc., less amortization (Note 4) .....	3,179	1,765	3,179	
Other .....	1,684	1,167	1,684	
	<u>\$ 5,368</u>	<u>\$ 3,296</u>	<u>\$ 5,368</u>	
	<u>\$113,462</u>	<u>\$ 78,200</u>	<u>\$134,732</u>	

The accompanying notes are an integral part of these balance sheets.

**LIABILITIES**

	Historical		Pro Forma 1964 Including Proceeds from Rights Offering (Unaudited) (Note 15)
	1964	1963 (Note 2)	
(Amounts in thousands)			
<b>CURRENT LIABILITIES:</b>			
Current maturities of long-term debt .....	\$ 4,717	\$ 2,904	\$ 4,717
Other notes or loans payable .....	800	1,440	800
Accounts payable .....	8,002	5,157	8,002
Cash dividends payable .....	1,595	1,353	1,595
Advances from joint ventures for future costs .....	—	1,008	—
Accrued liabilities .....	1,834	2,811	1,834
Total current liabilities .....	<u>\$ 16,948</u>	<u>\$ 14,673</u>	<u>\$ 16,948</u>
<b>LONG-TERM DEBT, net of current maturities (Note 7)</b> .....	<u>\$ 40,247</u>	<u>\$ 15,328</u>	<u>\$ 40,247</u>
<b>RESERVE FOR ESTIMATED FUTURE PRODUCTION COSTS APPLICABLE TO GAS PRODUCTION PAYMENTS (Note 5)</b> .....	<u>\$ 1,052</u>	<u>\$ 1,101</u>	<u>\$ 1,052</u>
<b>DEFERRED PROCEEDS FROM SALE OF SULPHUR PRODUCTION PAYMENT, net of tax benefits (Note 5)</b> .....	<u>\$ 1,131</u>	<u>\$ —</u>	<u>\$ 1,131</u>
<b>COMMITMENTS AND CONTINGENT LIABILITIES (Notes 2 and 8)</b>			
<b>MINORITY INTEREST IN:</b>			
Capital stock .....	\$ 1,984	\$ 2,530	\$ 1,984
Retained earnings and capital surplus .....	<u>4,419</u>	<u>3,638</u>	<u>4,419</u>
	<u>\$ 6,403</u>	<u>\$ 6,168</u>	<u>\$ 6,403</u>
<b>SHAREHOLDERS' EQUITY:</b>			
Capital stock, par value \$.20 a share (Notes 7, 10, 13 and 15) – authorized 10,000,000 shares, issued, 6,407,520 in 1964 (including 16,502 shares held in the treasury) and 6,117,849 shares in 1963 (after giving effect to shares issued in pooling of interests in 1964 – Note 1) .....	\$ 1,281	\$ 1,224	\$ 1,503
Warrants (Note 13) .....	21	21	21
Capital surplus (Notes 9 and 16) .....	32,474	26,242	53,522
Retained earnings (before reductions for stock dividends distributed in January, 1965 and January, 1964 – Note 9) .....	<u>13,905</u>	<u>13,443</u>	<u>13,905</u>
	<u>\$ 47,681</u>	<u>\$ 40,930</u>	<u>\$ 68,951</u>
	<u>\$113,462</u>	<u>\$ 78,200</u>	<u>\$134,732</u>

The accompanying notes are an integral part of these balance sheets.

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

CONSOLIDATED STATEMENTS OF INCOME  
FOR THE YEARS ENDED DECEMBER 31, 1964 AND 1963

	1964	1963 (Note 2)
	(Amounts in thousands)	
<b>INCOME:</b>		
Net sales of products .....	\$43,262	\$35,828
Contract drilling .....	593	1,481
Interest income .....	186	458
Miscellaneous .....	1,129	1,024
	<u>\$45,170</u>	<u>\$38,791</u>
<b>OPERATING COSTS AND EXPENSES:</b>		
Cost of sales of products .....	\$31,451	\$26,014
Contract drilling costs .....	518	1,270
Selling, general and administrative .....	8,222	6,655
Interest and debt expense .....	1,527	770
	<u>\$41,718</u>	<u>\$34,709</u>
	<u>\$ 3,452</u>	<u>\$ 4,082</u>
<b>EQUITY IN NET INCOME OF UNCONSOLIDATED SUBSIDIARIES:</b>		
S. V. Hunsaker & Sons, Inc. ....	\$ 1,974	\$ 803
International Ore & Fertilizer Corporation .....	379	54
Income tax provisions of unconsolidated subsidiaries (Hunsaker, \$1,055 and Interore \$455) eliminated by filing consolidated tax returns (Note 11) .....	1,510	—
	<u>\$ 3,863</u>	<u>\$ 857</u>
Net income before Federal income taxes, minority interests and special credits.....	<u>\$ 7,315</u>	<u>\$ 4,939</u>
<b>PROVISION FOR FEDERAL INCOME TAXES OF CONSOLIDATED SUBSIDIARIES PRIOR TO THE DATES THEY BECAME SUBSIDIARIES (Note 11)</b>		
Net income before minority interests and special credits .....	\$ 7,315	\$ 4,340
<b>MINORITY INTERESTS IN INCOME OF SUBSIDIARIES</b>		
Net income before special credits .....	410	419
<b>SPECIAL CREDITS:</b>		
Income from sale of gas production payments (Note 5) .....	—	3,882
Tax benefit resulting from losses on investments and advances not reflected above (Note 2) .....	2,476	—
Net income (including production payments and tax benefit from losses not reflected above) .....	<u>\$ 9,381</u>	<u>\$ 7,803</u>

*The accompanying notes are an integral part of these statements.*

CONSOLIDATED STATEMENTS OF FUNDS  
FOR THE YEARS ENDED DECEMBER 31, 1964 AND 1963

	1964	1963 (Note 2)
	(Amounts in thousands)	
<b>SOURCES OF FUNDS:</b>		
Net income including special credits .....	\$ 9,381	\$ 7,803
Add (deduct) —		
Equity in net income of unconsolidated subsidiaries and tax benefit from losses relating to unconsolidated former subsidiary .....	(6,339)	(857)
Depreciation, depletion and amortization and other noncash deductions, net.....	<u>2,687</u>	<u>5,833</u>
	<u>\$ 5,729</u>	<u>\$12,779</u>
Proceeds from—		
Sales of capital stock .....	1,156	1,355
Sales of properties, etc. ....	824	697
Long-term borrowings .....	38,696	5,033
Sale of sulphur production payment .....	2,000	—
	<u>\$48,405</u>	<u>\$19,864</u>
<b>DISPOSITION OF FUNDS:</b>		
Additions to property, plant and equipment .....	\$23,903	\$14,831
Payment of cash dividends .....	3,249	2,573
Redemption of capital stock of subsidiaries and purchase of treasury stock .....	1,444	223
Payments on long-term borrowings .....	13,232	1,426
Investments, advances, additions to other assets, etc. ....	4,761	3,881
	<u>\$46,589</u>	<u>\$22,934</u>
<b>INCREASE (DECREASE) IN WORKING CAPITAL</b> .....	<u>\$ 1,816</u>	<u>\$ (3,070)</u>

*The accompanying notes are an integral part of these statements.*

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY  
FOR THE YEAR ENDED DECEMBER 31, 1964

	Capital Stock				
	Shares (Individual)	Amount	Warrants (Amounts in thousands)	Capital Surplus	Retained Earnings
BALANCES, DECEMBER 31, 1963	6,117,849	\$1,224	\$21	\$26,242	\$13,443
ADD OR (DEDUCT):					
Net income (including tax benefit from losses relating to unconsolidated former subsidiary) .....	—	—	—	—	9,381
Exercise of employee stock options .....	26,389	5	—	396	—
Issuance of capital stock upon conversion of debentures	49,482	9	—	754	—
Dividends paid by Occidental Petroleum Corporation —					
Cash .....	—	—	—	—	(3,249)
Capital stock (Note 9) .....	213,800	43	—	5,454	(5,497)
Dividends paid in cash by a pooled company on common stock prior to pooling .....	—	—	—	—	(23)
Cost of capital stock reacquired .....	—	—	—	—	(56)
Excess of redemption price of preferred stock of a pooled company over par value thereof .....	—	—	—	—	(94)
Cost of shares of pooled company redeemed from dissenting shareholders .....	—	—	—	(346)	—
Cost of stock issue by a subsidiary .....	—	—	—	(26)	—
BALANCES, DECEMBER 31, 1964 (Note 9) .....	<u>6,407,520</u>	<u>\$1,281</u>	<u>\$21</u>	<u>\$32,474</u>	<u>\$13,905</u>

The accompanying notes are an integral part of this statement.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY  
FOR THE YEAR ENDED DECEMBER 31, 1963

	Capital Stock				
	Shares (Individual)	Amount	Warrants (Amounts in thousands)	Capital Surplus	Retained Earnings
BALANCES, DECEMBER 31, 1962—previously reported..	5,107,673	\$1,022	\$—	\$12,450	\$ 8,631
ADD:					
Pooling of interests with (Note 1) —					
Jefferson Lake Sulphur Company .....	532,605	107	20	3,644	5,254
S. V. Hunsaker & Sons .....	160,938	32	—	793	2,544
Retroactive adjustment resulting from change in accounting policies (Note 6) .....	—	—	—	—	1,785
BALANCES, DECEMBER 31, 1962—as adjusted .....	<u>5,801,216</u>	<u>\$1,161</u>	<u>\$20</u>	<u>\$16,887</u>	<u>\$18,214</u>
ADD OR (DEDUCT):					
Net income (including production payments) .....	—	—	—	—	7,803
Net income of pooled companies for short periods in 1962 and 1963 excluded from consolidated statement of income (Note 2) .....	—	—	—	—	295
Capital surplus applicable to issuances of capital stock by pooled companies .....	—	—	—	1,797	—
Exercise of employee stock options .....	18,304	4	—	208	—
Acquisition of businesses—					
International Ore & Fertilizer Corporation and related companies (Note 1) .....	103,579	21	—	2,802	—
Other .....	7,280	1	—	573	—
Excess of proceeds from sales of common stock by a pooled company over its par value .....	—	—	—	216	—
Assumption of common stock warrants of an unconsolidated subsidiary (Note 13) .....	—	—	1	—	—
Dividends paid by Occidental Petroleum Corporation—					
Cash .....	—	—	—	—	(2,573)
Capital stock (Note 9) .....	187,470	37	—	3,759	(3,796)
Dividends paid in cash by pooled companies on common stock prior to pooling .....	—	—	—	—	(88)
Cost of capital stock reacquired .....	—	—	—	—	(223)
Write-off, by a pooled company prior to merger, of investments and advances to an unconsolidated subsidiary considered in merger negotiations to be of no value (Note 2) .....	—	—	—	—	(6,189)
BALANCES, DECEMBER 31, 1963 (Note 9) .....	<u>6,117,849</u>	<u>\$1,224</u>	<u>\$21</u>	<u>\$26,242</u>	<u>\$13,443</u>

# OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS December 31, 1964

### (1) Pooling of interests and acquisitions —

In 1963 Occidental exchanged 420,987 shares of capital stock for the assets and liabilities of The Best Fertilizers Co. and The Best Fertilizers Company (formerly The Best Fertilizers Company of Texas), together with outstanding shares of common stock of two affiliates of The Best Fertilizers Co. In 1964, Jefferson Lake Sulphur Company was merged with and into Occidental and 532,605 shares of capital stock were issued in connection with this merger. Also in 1964 Occidental exchanged 160,938 shares of capital stock for the assets and liabilities of S. V. Hunsaker & Sons (Hunsaker). These transactions were accounted for as poolings of interests. The book values of assets and liabilities of these companies were transferred to newly organized, wholly owned subsidiaries of Occidental and their retained earnings carried forward, except that, since, under terms of the Hunsaker agreement, convertible subordinated debentures of Hunsaker in the principal amount of \$1,476,550, due May 1, 1978, became convertible into 59,062 shares of Occidental's capital stock, such liability was directly assumed by Occidental and was not transferred to the newly formed subsidiary.

On December 11, 1963, in exchange for 103,579 shares of Occidental's capital stock, a wholly owned subsidiary of Occidental acquired substantially all of the assets and assumed substantially all of the liabilities of International Ore & Fertilizer Corporation (Interore) and Occidental and its subsidiaries acquired all of the outstanding capital stock of certain corporations affiliated with Interore. This transaction was accounted for as a purchase and the investment in these companies was recorded at cost measured by the fair value (\$2,822,528) of the capital stock issued.

### (2) Principles of consolidation —

The consolidated financial statements include the accounts of Occidental Petroleum Corporation and its significant subsidiaries (other than Hunsaker and Interore). All material intercompany accounts and transactions have been eliminated in the consolidation (there were no significant intercompany profits or losses on transactions with affiliates not consolidated). Also, in preparing the consolidated financial statements as of December 31, 1963, effect has been given to (1) the transactions incident to the poolings of interests in 1964 described in Note 1, (2) the change in accounting for oil and gas exploration and development costs described in Note 6, and (3) certain restatements to conform with 1964 classifications.

Jefferson Lake Sulphur Company had formerly consolidated the accounts of Jefferson Lake Asbestos Company (then a majority-owned subsidiary) for the year ended December 31, 1962, but for the year ended December 31, 1963, such subsidiary was not consolidated. At December 31, 1963, Jefferson Lake Sulphur Company, by a charge to retained earnings in the amount of \$6,189,000, provided a reserve equivalent to the aggregate of its investments in shares of stock and advances to, and guarantees of obligations of Jefferson Lake Asbestos Company; and in the merger agreement formula providing for exchange of Occidental's share for Jefferson Lake Sulphur Company's shares, no value was assigned to Jefferson Lake Sulphur Company's investment in and advances to Jefferson Lake Asbestos Company. The Jefferson Lake Asbestos Company shares were disposed of in their entirety by Occidental in 1964. At December 31, 1964, the tax benefits resulting from the deduction of these losses had been fully utilized.

The individual accounts of Interore have not been consolidated since its operations (primarily as a trading concern engaged in the purchase and sale of fertilizers and fertilizer raw materials) are considerably different from those of Occidental and consolidated subsidiaries and substantially all of its customers are located outside of the United States. The investment in Interore is carried at cost measured by the fair value of the capital stock issued in connection with the acquisition of its assets and liabilities plus accumulated net income from the date of acquisition (December 11, 1963) to December 31, 1964. The cost of Occidental's investment exceeded the underlying book value of the net assets of Interore (and corporations affiliated with Interore) at acquisition by \$1,508,000; this amount is being amortized over a 20-year period commencing in 1964.

Condensed summaries (in thousands of dollars) of the financial condition of Interore at December 31, 1964, and the results of its operations since acquisition on December 11, 1963, follow:

Current assets .....	\$16,729
Investments and advances .....	1,257
Property and equipment .....	4,578
Goodwill .....	1,362
Total assets .....	<u>\$23,926</u>
Current liabilities .....	\$16,033

Long-term liability under mineral deposit purchase agreement (guaranteed by parent company) .....	3,900
Due to parent company .....	817
Capital stock and surplus .....	3,176
Total liabilities and equity .....	<u>\$23,926</u>

	1964	December 11, 1963 to December 31, 1963
Sales .....	\$82,238	\$5,926
Cost of sales .....	79,387	5,621
Net income .....	<u>379</u>	<u>54</u>

Interore's contingent liabilities at December 31, 1964, consisted of \$4,740,000 under letters of credit in favor of suppliers, and certain litigation which in the opinion of counsel will not result in any material liability.

The individual accounts of Hunsaker have not been consolidated since its operations as a real estate development and sales concern are not comparable with those of Occidental and consolidated subsidiaries which relate primarily to the extraction and processing of minerals and chemicals. Occidental's investment in Hunsaker is carried at an amount equivalent to the book value of assets and liabilities of Hunsaker on a pooling of interests basis of accounting and its equity in the net earnings and the accumulated earnings and surplus of Hunsaker have been included in income, retained earnings and capital surplus in the accompanying financial statements. Occidental's equity in net income of Hunsaker for 1963 is based upon the net income of that company and its predecessors for the fiscal year ended September 30 and has not been recast to conform with the fiscal year of Occidental. Net income for the three months ended December 31, 1963, has been credited directly to retained earnings. Condensed summaries (in thousands of dollars) of the financial condition of Hunsaker at December 31, 1964, and the results of its operations for the years ended in 1963 and 1964 are shown below:

Notes and contracts receivable from real estate sales .....	\$15,658
Residential real estate held for sale or investment .....	30,202
Rental properties, including land .....	5,806
Other assets .....	5,463
<b>Total assets .....</b>	<b>\$57,129</b>

Trust deed notes relating to —	
Real estate held for sale or investment .....	\$19,072
Houses sold under conditional sales contracts .....	10,823
Rental properties .....	5,149
Other secured liabilities .....	1,898
Unsecured notes payable to banks .....	5,000
Other liabilities .....	1,409
Deferred Federal income taxes .....	1,556
Due to parent company .....	4,681
Capital stock and surplus .....	7,541
<b>Total liabilities and equity .....</b>	<b>\$57,129</b>

	Year ended in	
	1964	1963
<b>Income —</b>		
Sales of residential real estate and land .....	\$23,969	\$17,501
Sales of apartments .....	14,307	780
Other .....	5,275	4,474
<b>Total</b>	<b>\$43,551</b>	<b>\$22,755</b>

Operating costs and expenses —		
Cost of residential real estate and land sales .....	\$20,122	\$14,585
Cost of apartment sales .....	12,444	653
Other .....	7,956	5,875
<b>Total</b>	<b>\$40,522</b>	<b>\$21,113</b>
Net income .....	\$ 1,974	\$ 803

Hunsaker's commitments and contingent liabilities as of December 31, 1964, are as follows:

- (a) As a participant in certain joint ventures, Hunsaker is contingently liable on a joint and several basis for the liabilities of such joint ventures which approximate \$2,595,000.
- (b) Hunsaker has contingent liability in connection with obligations to lending institutions which are secured by first deeds of trust on residential units in cases where Hunsaker sold such units but no express substitution of debtors was made. Although

the total amount of the obligations at December 31, 1964, was approximately \$29,000,000, the contingent liability is only as to the excess of the indebtedness over the value of the security. It is the opinion of management that Hunsaker will incur no loss in view of the fact that the security is substantially in excess of the indebtedness and the procedure for obtaining deficiency judgements against the debtor is cumbersome and not utilized in the trade. At December 31, 1964, these contingent obligations were guaranteed by Occidental Petroleum Corporation. By subsequent releases obtained after auditors' examination, Occidental's guarantee has been reduced to \$13,900,000.

At December 31, 1964, investments in and advances to other unconsolidated majority owned subsidiaries and an affiliate totaled \$728,054 as compared with equity in net assets of those companies totaling \$758,271.

(3) *Joint ventures* —

Occidental's share of income and expenses of joint ventures in which it has investments has been included in the consolidated statements of income under the applicable captions, and its investment in oil and gas joint ventures has been included in the following categories in the accompanying balance sheets:

	1964	1963
	(Amounts in thousands)	
Properties and equipment —		
Leases and exploration costs .....	\$ 8,751	\$ 7,754
Lease and well equipment .....	4,047	2,339
Reserves for depreciation, depletion and amortization .....	(2,603)	(1,940)
Other assets (net) .....	62	142
	<u>\$10,257</u>	<u>\$ 8,295</u>

The amounts as of December 31, 1963, were previously shown in the balance sheet as investments in and advances to oil and gas joint ventures.

(4) *Other assets* —

Deferred financing costs are being amortized on the basis of the terms of the related financial agreements.

Preoperating expenses and project development costs are comprised of the following:

	1964	1963
	(Amounts in thousands)	
Preproduction expenses in Calgary gas field being amortized on unit of production basis .....	\$1,118	\$1,137
Preoperating costs relating to major new operating facilities installed by The Best Fertilizers Co. and The Best Fertilizers Company, being amortized over a five-year period .....	772	187
Gas contract negotiation costs being amortized over the contract period .....	115	121
Organization and merger costs being amortized over a five-year period .....	409	148
Costs applicable to new projects being studied and developed .....	765	172
	<u>\$3,179</u>	<u>\$1,765</u>

(5) *Production payments* —

(a) *Gas* —

In 1961, 1962 and 1963, Occidental included the proceeds from sales of carved-out production payments (net of provisions for applicable future lifting costs, depreciation, depletion and amortization) in its statement of income as a special credit in the year of sale. Gas sold in place under these arrangements to be produced in future periods will be excluded from income when produced.

During 1962, Occidental entered into agreements with one purchaser under which three carved-out production payments were to be sold, each in the principal sum of \$5 million. The agreements provide that the production payments are payable out of varying percentages of gas produced from Occidental's Lathrop field in an amount equal to the consideration received plus 6 per cent per annum of the unliquidated balance of the production payment computed monthly over the period of payment. The agreements also provide that no portion of the proceeds of sales of gas from the field will be applied to the liquidation of principal until January 1, 1965. Under the agreements, the portion of the proceeds of sales of gas applied in liquidation of principal may vary in 1965 from 9 per cent to 19 per cent, in 1966 from 19 per cent to 39 per cent and in 1967 and future years from 30 per cent to 60 per cent.

Under the above arrangements, production payments in the total principal sum of \$7,250,000 and \$7,750,000 were sold during the years ended December 31, 1963, and 1962, respectively. In addition, production payments in the principal sum of \$600,000 and \$1,200,000 were sold in 1962 and 1961, respectively, out of Occidental's interests in another field to another purchaser. Following is a summary of significant data with respect to production payments sold in 1961, 1962 and 1963:

	Production Payments Sold in		
	1961	1962	1963
(Amounts in thousands)			
Production payments sold .....	\$1,200	\$8,350	\$7,250
Provision for future production costs and depreciation, depletion and amortization .....	271	2,872	3,368
Net income from production payment sales .....	<u>\$ 929</u>	<u>\$5,478</u>	<u>\$3,882</u>
Estimated amount of gas required to liquidate production payment (in thousand cubic feet) at December 31, 1964 .....	248	36,986	30,424
Estimated year that production payments will be liquidated .....	1965	1971	1971
Unliquidated Balance at December 31			
	1961	1962	1963
(Amounts in thousands)			
Year payment sold —			
1961 .....	\$1,200	\$ 731	\$ 331
1962 .....	—	8,130	7,823
1963 .....	—	—	7,250
Cumulative unliquidated balance .....	<u>\$1,200</u>	<u>\$8,861</u>	<u>\$15,404</u>
			<u>\$15,077</u>

No proceeds from sales of gas from the Lathrop field will be applied to liquidate principal until 1965 for 1962 sales and 1966 for 1963 sales.

Under an alternative generally accepted method of accounting (now more commonly used and adopted by the company for production payments sold in 1964) for sales of carved-out production payments, proceeds from such sales are accounted for as deferred income to be included in sales as the oil or gas (or other minerals) required to liquidate such payments is produced. If, in connection with the cash received from the carved-out production payments, Occidental had followed this alternative method, the amounts reported as net income for the years ended December 31, 1961, 1962 and 1963, would, as a matter of accounting, have been reduced by approximately \$920,000, \$4,954,000 and \$3,501,000, respectively, and increased by \$190,000 for 1964.

(b) *Sulphur production payment* —

During 1964 one of the company's subsidiaries sold a carved-out sulphur production payment in the amount of \$2,000,000. Such amount, after deducting \$319,000 representing sulphur produced to December 31, 1964, to partially liquidate such production payment, and after deducting a charge equivalent to tax benefits of \$550,000 recognized in the accounting for oil and gas costs (see Note 6) which were occasioned by the sale of the sulphur payment, has been deferred and is separately shown on the balance sheet as deferred income.

(6) *Property, Plant and equipment* —

Property, plant and equipment is comprised of the following at December 31, 1964:

	Cost	Reserves for Depreciation, Net Depletion and Amortization	Book Value
(Amounts in thousands)			
Oil and gas operations —			
Leases and exploration costs ...	\$36,148	\$ 9,434	\$26,714
Lease and well equipment ....	8,474	1,702	6,772
Drilling in progress .....	203	—	203
Drilling equipment .....	420	201	219
Other .....	1,231	208	1,023
Manufacturing and sulphur operations —	<u>\$46,476</u>	<u>\$11,545</u>	<u>\$34,931</u>
Land, leaseholds, office and warehouse .....	\$ 2,580	\$ 620	\$ 1,960
Plant and equipment .....	33,663	12,463	21,200
Construction in progress ....	1,564	—	1,564
	<u>\$37,807</u>	<u>\$13,083</u>	<u>\$24,724</u>
	<u>\$84,283</u>	<u>\$24,628</u>	<u>\$59,655</u>

**Oil operations —**

Prior to 1964, certain dry hole costs, lease abandonments, and certain exploration costs related to the domestic oil and gas operations of the company and subsidiaries consolidated were charged to expense as incurred. Lease and drilling costs applicable to producing properties were capitalized and amortized over the productive lives of the properties on a lease by lease basis prior to 1961 and on a composite basis subsequent to that time. Geological, geophysical, certain drilling costs, and allocable land department costs were capitalized as costs of undeveloped leases.

In 1964, the company and its subsidiaries retroactively changed their accounting for domestic oil and gas operations so that all costs of exploration for and development of oil and gas reserves are now capitalized. The total investment in oil and gas properties is being amortized (also retroactively applied) on a company-wide composite unit of production method over the estimated productive life of the company's total domestic oil and gas reserves. The company has also retroactively recognized certain tax benefits representing income taxes which would have been payable if certain items capitalized had not been deducted for income tax purposes in accumulated depreciation, depletion and amortization.

The net effect of these changes was to increase income for the years 1956 through 1962 by \$1,785,000 and to decrease income for 1963 by \$451,000. The net change in income for the total period ended at December 31, 1963 (\$1,334,000) is represented by an increase in cost of oil and gas properties of \$5,818,000 less an increase in accumulated reserves of \$4,484,000.

The accounting for Canadian oil and gas properties has been consistent with that now adopted for domestic oil and gas properties except for immaterial differences. Such accounting was changed in 1964 to conform with the accounting practice now followed by Occidental, which change did not have a material effect.

**(7) Long-term debt —**

Following is a summary of long-term debt, net of current maturities, at December 31, 1964 and 1963:

	Interest Rate	1964	1963
		(Amounts in thousands)	
<b>Occidental Petroleum Corporation —</b>			
Notes payable to bank due 1971 and 1974 secured by Occidental's interest in certain gas fields .....	5-1/8%	\$15,397	\$ —
Convertible subordinated debentures due 1978 .....	6-1/2	240	—
Other notes payable .....	—	130	—
<b>The Best Fertilizers Co. and consolidated subsidiaries —</b>			
Note payable due 1977 .....	6	2,300	2,300
Note payable to insurance company .....	5-5/8	—	2,200
Note payable due in annual installments from 1970 to 1979 .....	5-1/4	6,200	—
Notes payable to bank due in semiannual installments from 1964 to 1971 .....	5-1/8	3,227	—
Various notes (payable in varying installments) .....	5-1/8- 6-1/2%	1,540	1,080
<b>Jefferson Lake Sulphur Company and consolidated subsidiary —</b>			
Sinking fund debentures of Jefferson Lake			
Petrochemicals of Canada, Ltd. (a consolidated subsidiary) secured by its interest in a gas processing company and real property and fixed assets in the Calgary gas field .....	6-1/2	3,952	4,216
Notes payable to bank secured by investment in stock of Jefferson Lake			
Petrochemicals of Canada, Ltd., due in quarterly installments from 1964 to 1972 .....	5-1/8	6,795	—
Note payable to insurance company .....			
Note payable to bank .....			
Other notes payable, due 1969 to 1973 .....	5-1/4- 5-3/4%	466	65
		<u>\$40,247</u>	<u>\$15,328</u>

Certain of the above notes represent borrowings under agreements which provide for covenants relating to maintenance of financial

ratios, borrowings, declaration of cash dividends, etc. Under the indenture relating to the 6-1/2% convertible subordinated debentures, \$7,551,000 of retained earnings were restricted as to payment of cash dividends at December 31, 1964. Aside from such restriction, \$4,061,000 of retained earnings were restricted as to payment of cash dividends at that date. Following is a summary of maturities of long-term debt subsequent to December 31, 1965 (amounts in thousands):

Due in 1966 .....	\$ 4,264
Due in 1967 .....	3,756
Due in 1968 .....	4,273
Due in 1969 .....	4,672
Due after December 31, 1969 .....	23,282
	<u>\$40,247</u>

**(8) Commitments and contingent liabilities —**

Occidental has guaranteed payment of \$8,000,000 bank loans of Chatham Realty Corporation, a nonrelated company. The loans are evidenced by a note payable due in three installments from December 31, 1965, to December 31, 1967, bearing interest at 5-1/4 per cent. The loans were obtained by Chatham to finance its purchase of notes secured by second trust deeds from S. V. Hunsaker & Sons, Inc., an unconsolidated subsidiary of Occidental.

Under terms of the Agreement and Plan of Reorganization between Occidental and S. V. Hunsaker & Sons, Occidental guaranteed substantially all of the obligations of its unconsolidated subsidiary, S. V. Hunsaker & Sons, Inc. at that date. At December 31, 1964, such guaranteed liabilities totaled \$33,000,000 (subsequently reduced to \$15,000,000 by means of Occidental's release as guarantor, obtained subsequent to auditors' examination), plus contingent liabilities as reflected in Note 2(b) above.

In August 1964 Armour & Company, a Delaware corporation, instituted an action in the Court of Chancery of the State of Delaware naming as defendants Occidental Research and Engineering Corporation, International Ore & Fertilizer Corporation, and Occidental Petroleum Corporation. The complaint alleged that defendants are unlawfully acquiring from former employees of Armour, now employed by defendants, and using for their own benefit, certain trade secrets and confidential information belonging to Armour in the field of superphosphoric acid. Armour seeks an injunction restraining defendants from acquiring, or using, or benefiting from such trade secrets and confidential information and from employing the former Armour employees in any capacity which would require the disclosure by them of such trade secrets and confidential information. Armour also seeks an accounting from the defendants of all gains and profits resulting from the use by defendants of Armour's trade secrets and confidential information, together with damages. Research and Interore have filed answer denying all material allegations of Armour's complaint. Occidental is not subject to personal jurisdiction in Delaware and, therefore, has not appeared in the action.

On September 1, 1964, Armour also instituted an action in the United States District Court for the Middle District of Florida, naming as defendants six former Armour employees and also instituted a companion action in the United States District Court for the Southern District of California, naming as defendants four former Armour employees. The named defendants in both of these actions are now all employed by Occidental Petroleum Corporation or its subsidiaries. Armour's complaints alleged that the defendants had wrongfully disclosed, for Occidental's benefit, certain trade secrets and confidential information belonging to Armour in the field of superphosphoric acid. Armour seeks injunctions preventing the employees from disclosing, utilizing or benefiting from such trade secrets and confidential information, and an order directing the employees to deliver to Armour all physical embodiments of Armour's trade secrets and confidential information. The defendants have filed answers denying all material allegations of Armour's complaints and, in addition, they have filed counter-claims seeking to restrain Armour from wrongfully interfering with their employment relationship with Occidental.

In the opinion of special counsel for Occidental and Occidental's general counsel, Occidental, its subsidiaries and the individual employees who are parties to the action have a meritorious defense and should prevail.

In November, 1964, Occidental, two of its subsidiaries and one of its officers were named in an action in which a former employee seeks damages for an alleged breach of various contractual obligations. In the opinion of special counsel for Occidental and Occidental's general counsel, each of the defendants has a meritorious defense to the action and should prevail.

International Ore & Fertilizer Corporation (Interore) (an unconsolidated subsidiary) has entered into a contract for the purchase of a phosphate rock deposit in Hamilton County, Florida. The contract, performance of which is guaranteed by Occidental, provides that Interore is obligated to purchase all economically recoverable reserves of phosphate rock lying in and under a specified 5,300-acre

land parcel at a cost of 40¢ per ton. The minimum fixed obligation under the agreement is \$4,500,000 payable in 15 annual installments of \$300,000. An initial \$300,000 payment has been made by Interore, reducing the minimum fixed obligation at December 31, 1964, to \$4,200,000. Liability beyond the minimum exists only to the extent that additional economically recoverable reserves are present. The amount of such reserves is not presently known.

The phosphate deposit described above has been leased to Occidental Corporation of Florida (a consolidated subsidiary) for operation. Subsequent to December 31, 1964, a nonprofit corporation (Southeast Hamilton County, Florida, Industrial Development Association, Incorporated), organized to promote industrial development in the County, completed the sale of first mortgage revenue bonds in principal amount of \$10,110,000 at an interest rate of 4-1/2 per cent to finance purchase of a dragline and construction of a phosphate beneficiation plant and other facilities at the mine site. Occidental of Florida has signed a long-term lease (20-year term) for these facilities at a rental sufficient to cover bond principal and interest.

#### (9) Retained earnings and dividends —

As set forth in Note 7, loan agreements between certain of the subsidiaries and various lending agencies provide a restriction on retained earnings available for payment of cash dividends.

Four per cent stock dividends declared in December, 1963, and November, 1964, were not recorded in the financial statements until issuance of capital stock in payment of such dividends in January, 1964, and January, 1965, at which time amounts equal to the fair value of whole shares issued were transferred from retained earnings to capital stock and capital surplus as follows:

	Number of Shares	Fair Value
Declared in 1963, issued in 1964 ..	213,800	\$5,496,798
Declared in 1964, issued in 1965 ..	250,129	6,794,254

#### (10) Stock options —

Options to purchase capital stock of Occidental have been granted to officers and employees under stock options plans adopted in 1959, 1960 and 1961. No options remain outstanding with respect to the 1959 and 1960 plans.

The 1961 Employees' Stock Option Plan originally provided for the granting to officers and key employees of Occidental options to purchase an aggregate of 250,000 shares of capital stock at prices not less than 100 per cent of the market value at date of grant. The granting of options under the plan was limited to 50,000 shares in any one year plus the number not issued in prior years. The board of directors of Occidental has amended the Plan, to increase the aggregate number of shares with respect to which options may be granted to 550,000 and the number of shares with respect to which options may be granted in any one year to 150,000 plus adjustments in accordance with the antidilution provisions of the Plan. On February 28, 1964, these amendments were approved by Occidental's shareholders.

Upon the merger of Jefferson Lake Sulphur Company with and into Occidental, outstanding options to purchase 19,995 shares of Jefferson common stock, previously granted by Jefferson to certain of its key employees were assumed by Occidental at the rate of .676 shares of Occidental for each share of Jefferson without any change in the aggregate option prices or the terms thereof.

Restricted stock options granted by S. V. Hunsaker & Sons to certain of its employees to purchase an aggregate of 7,500 shares of Hunsaker stock were assumed by Occidental at the time Hunsaker became a subsidiary at the rate of one share of Occidental for each five shares of Hunsaker.

Following is a summary of transactions during the year ended December 31, 1964, including option obligations assumed in connection with the Jefferson merger and the Hunsaker acquisition, adjusted to give effect to the four per cent stock dividends described in Note 9 in accordance with the antidilution provisions of the plans:

	Shares	Option Price
Options outstanding, December 31, 1963 (including 66,873 shares exercisable but not exercised)....	169,355	\$ 8.89-\$29.59
Add (or deduct) 1964 transactions —		
Granted .....	208,606	\$23.44-\$31.73
Assumed —		
Jefferson Lake Sulphur Company	14,057	\$20.71-\$22.14
S. V. Hunsaker & Sons .....	1,560	\$19.23
Exercised .....	(27,435)	\$ 8.89-\$22.14
Terminated .....	(19,340)	\$23.46-\$30.65
Options outstanding, December 31, 1964 (including 142,381 shares exercisable but not exercised)....	346,803	\$ 8.89-\$31.73
Shares reserved at December 31, 1964	<u>549,774</u>	

No amounts have been reflected in the income accounts of Occidental or its consolidated subsidiaries with respect to stock options. Proceeds from the sale of stock are credited to capital stock (at par value) and the amounts in excess thereof are credited to capital surplus.

#### (11) Federal income taxes —

As a result of the deduction for tax purposes of certain items capitalized for financial statement purposes, and as a result of utilizing operating loss carryforwards created thereby, no Federal or Canadian income taxes have been paid by Occidental nor by Jefferson Lake Sulphur Company and its Canadian subsidiary during the two years ended December 31, 1964. Certain tax benefits relating to domestic oil and gas operations have been recognized in accumulated depreciation, depletion and amortization (see Note 6).

Occidental follows the practice of filing consolidated tax returns including its wholly owned domestic subsidiaries and no taxes have been payable on such consolidated returns. Federal income taxes applicable to income of consolidated subsidiaries accounted for on a pooling of interests basis for periods prior to the dates they became subsidiaries have been shown in the consolidated statements of income.

#### (12) Inventories —

Inventories are stated at the lower of average cost or market and are comprised of the following at December 31, 1964, and 1963:

	1964	1963
	(Amounts in thousands)	
Finished goods .....	\$5,822	\$4,943
Work in process .....	525	246
Raw material .....	849	536
	<u>\$7,196</u>	<u>\$5,725</u>
Material and supplies .....	1,089	573
Total .....	<u>\$8,285</u>	<u>\$6,298</u>

#### (13) Warrants —

S. V. Hunsaker & Sons had issued warrants to purchase 20,000 shares of its capital stock at prices ranging from \$5.50 to \$6.40 per share during the period May 1, 1964, through April 30, 1968. The warrants were sold for \$1,000 on June 3, 1963. The warrants were directly assumed by Occidental and are exercisable with respect to 4,160 shares of Occidental capital stock at prices ranging from \$26.44 to \$30.77 per share.

Jefferson Lake Petrochemicals of Canada, Ltd. has issued non-redeemable warrants which entitle the holders to purchase an aggregate of 550,049 common shares at prices from \$7 to \$13 per share (Canadian) to June 1, 1971. Pursuant to the subsidiary's offer which terminated June 30, 1962, 50,049 Series B warrants were issued in exchange for Series A warrants previously outstanding on a share-for-share basis, and 8,551 Series A warrants not exchanged under this offer were redeemed. At December 31, 1964, there were outstanding warrants to purchase 549,849 common shares.

#### (14) Retirement income and insurance plans —

Certain of the company's subsidiaries have retirement plans. The annual cost of these plans is \$391,000, and the unfunded past service liability at December 31, 1964, is \$354,000.

#### (15) Subsequent event —

In January, 1965, Occidental Petroleum Corporation offered to holders of its capital stock the right to subscribe at \$20 per share for additional shares of its capital stock at the rate of one share for each six shares held. The offering was completed on February 16, 1965, and proceeds from issuance of 1,110,022 shares, totaling \$22,200,440, were received by that date. Underwriters fees and expenses in connection with the offering totaled approximately \$930,000.

A pro forma balance sheet at December 31, 1964 (not covered by the accompanying auditors' opinion), has been included in the accompanying financial statements to reflect the changes resulting from this additional equity financing together with the advance of \$5,000,000 of the proceeds to S. V. Hunsaker & Sons, Inc., used by that subsidiary to liquidate unsecured short-term bank loans guaranteed by Occidental.

ARTHUR ANDERSEN & Co.

1320 WEST THIRD STREET  
LOS ANGELES, CALIF. 90017

To the Stockholders and Board of Directors,  
Occidental Petroleum Corporation:

We have examined the consolidated historical balance sheets of OCCIDENTAL PETROLEUM CORPORATION (a California corporation) and subsidiaries consolidated as of December 31, 1964 and 1963, and the related consolidated statements of income, stockholders' equity, and funds for the two years then ended, all as prepared on the basis described in Note 2 to the consolidated financial statements. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not examine the financial statements of Jefferson Lake Sulphur Company and consolidated subsidiary for the year ended December 31, 1963, and Jefferson Lake Petrochemicals of Canada, Ltd. for the year ended December 31, 1964, both of which are included in the consolidated financial statements and the latter of which represents an aggregate of approximately 11 per cent of total consolidated assets at December 31, 1964, but have received reports thereon by other public accountants who have made such examinations. We also did not examine the financial statements of S. V. Hunsaker & Sons, Inc. (formerly S. V. Hunsaker & Sons) for the year ended September 30, 1963, the equity in net income of which company has been reflected in the consolidated statements of income on a pooling of interests basis, but have received reports thereon by other public accountants who made such examination.

In our opinion, based upon our examination and aforementioned reports of other public accountants, the financial statements referred to above present fairly the consolidated financial position of Occidental Petroleum Corporation and subsidiaries consolidated at December 31, 1964 and 1963, and the results of their operations and sources and disposition of funds for the years then ended, in conformity with generally accepted accounting principles. Except for the change in 1964 (which we approve) in the method of reflecting proceeds from sale of production payments as explained in Note 5 to the consolidated financial statements and after giving retroactive effect to (1) the removal from consolidation (which we approve) of a subsidiary which has subsequently been disposed of and (2) the change (which we approve) in the method of accounting for oil and gas costs, as explained in Note 6 to the consolidated financial statements, in our opinion, such accounting principles were applied on a consistent basis.

*Arthur Andersen & Co.*

ARTHUR ANDERSEN & CO.

Los Angeles, California  
February 10, 1965

#### EXECUTIVE AND ADMINISTRATIVE OFFICES

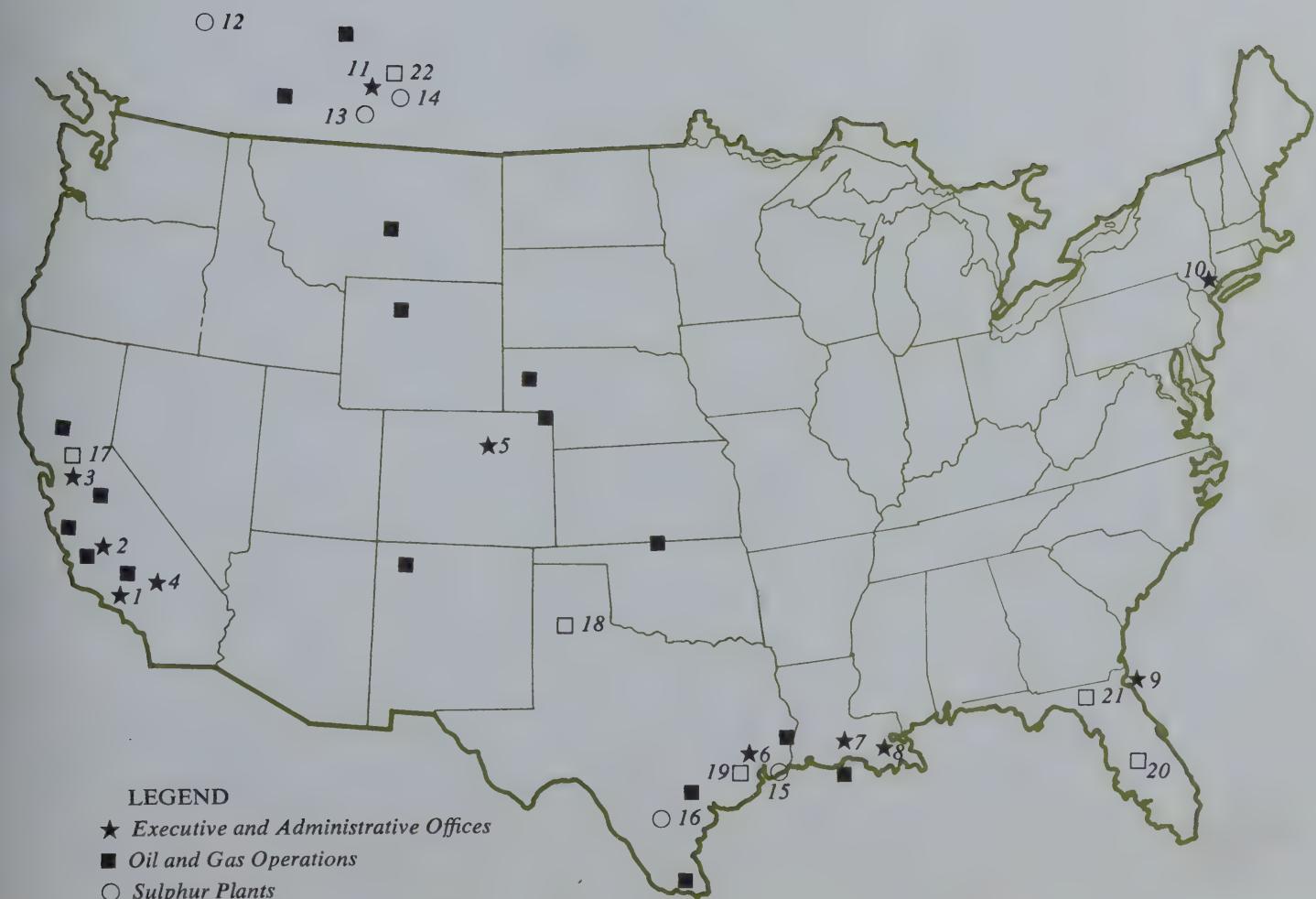
- ★ 1 *Los Angeles, California*  
OCCIDENTAL PETROLEUM CORPORATION  
OCCIDENTAL RESEARCH AND  
ENGINEERING CORPORATION (ORE)
- ★ 2 *Bakersfield, California*  
OCCIDENTAL PETROLEUM  
OPERATIONS OFFICES
- ★ 3 *Lathrop, California*  
THE BEST FERTILIZERS CO.  
CALIFORNIA AMMONIA COMPANY  
(CALAMCO)
- ★ 4 *Irwindale, California*  
S. V. HUNSAKER & SONS, INC.
- ★ 5 *Denver, Colorado*  
OCCIDENTAL PETROLEUM, ROCKY  
MOUNTAIN DIVISION
- ★ 6 *Houston, Texas*  
JEFFERSON LAKE SULPHUR COMPANY  
PETROCHEMICALS DIVISION
- ★ 7 *Lafayette, Louisiana*  
OCCIDENTAL PETROLEUM,  
GULF COAST DIVISION
- ★ 8 *New Orleans, Louisiana*  
JEFFERSON LAKE SULPHUR COMPANY
- ★ 9 *Jacksonville, Florida*  
OCCIDENTAL CORPORATION OF FLORIDA
- ★ 10 *New York, New York*  
OCCIDENTAL PETROLEUM,  
NEW YORK OFFICE  
INTERNATIONAL ORE & FERTILIZER  
CORPORATION (INTERORE)  
JEFFERSON LAKE SULPHUR COMPANY,  
NEW YORK OFFICE
- ★ 11 *Calgary, Alberta, Canada*  
JEFFERSON LAKE PETROCHEMICALS  
OF CANADA LTD.

#### SULPHUR PLANTS

- 12 *Peace River, British Columbia, Canada*  
JEFFERSON LAKE PETROCHEMICALS  
OF CANADA LTD.
- 13 *Coleman, Alberta, Canada*  
JEFFERSON LAKE PETROCHEMICALS  
OF CANADA LTD.
- 14 *Calgary, Alberta, Canada*  
JEFFERSON LAKE PETROCHEMICALS  
OF CANADA LTD.
- 15 *Long Point Dome, Texas*  
JEFFERSON LAKE SULPHUR COMPANY
- 16 *Tilden, Texas*  
TRANS-JEFF CHEMICAL CORPORATION

#### FERTILIZER AND PETROCHEMICAL PLANTS

- 17 *Lathrop, California*  
THE BEST FERTILIZERS CO.
- 18 *Plainview, Texas*  
THE BEST FERTILIZERS COMPANY
- 19 *Houston, Texas*  
THE BEST FERTILIZERS COMPANY  
JEFFERSON LAKE SULPHUR COMPANY
- 20 *Lakeland, Florida*  
OCCIDENTAL CORPORATION OF FLORIDA  
SUPERPHOSPHORIC ACID PLANT
- 21 *Hamilton County, Florida*  
OCCIDENTAL CORPORATION OF FLORIDA  
SUWANNEE RIVER PHOSPHATE ROCK MINE
- 22 *Calgary, Alberta, Canada*  
JEFFERSON LAKE PETROCHEMICALS  
OF CANADA LTD.



# O X Y

OCCIDENTAL PETROLEUM CORPORATION

## ACQUISITIONS COMMITTEE

- \* 1. Dorman L. Commons, financial vice president; Dr. Armand Hammer, president and chairman of the board; Thomas Wachtell, executive assistant to the president; Robert S. Rose, vice president and general counsel, and Lawrence E. Scott, vice president.

## FINANCE

- 2. Charles J. Lee, controller and assistant secretary, and Dorman L. Commons, financial vice president.

## OIL AND GAS

- 3. E. C. (Gene) Reid, senior executive vice president, and E. F. (Bud) Reid, vice president and exploration manager.
- 4. Noeth Gillette, land manager, and W. Reese Higdon, general superintendent.
- 5. Stanford Eschner and Robert N. Critchlow, geologists; Robert A. Teitsworth, vice president, geology, and Richard H. Vaughan, vice president and chief geologist.
- 6. Russell A. Pomeroy, manager of operations, Rocky Mountain Division, Denver, Colorado.
- 7. Donald R. Gladden, division landman; Fred G. Johnson, division engineer, and Karl H. Arleth, division geologist, Gulf Coast Division, Lafayette, Louisiana.
- 8. Glenn E. Thompson, Rocky Mountain Division engineer, and Charles C. Horace, vice president and chief petroleum engineer.
- 9. Eric T. Cozens, fireflood engineer, and James M. Burns, steamflood engineer.

## HOME BUILDING

- 10. S. V. Hunsaker & Sons, Inc. — Daniel S. Connelly, vice president and treasurer; Sim Hunsaker, Jr., vice president and secretary; S. V. Hunsaker, Sr., chairman of the Board, and Richard C. Hunsaker, president.

## FERTILIZERS

- 11. International Ore & Fertilizer Corporation (Interore) — Ronald P. Stanton, executive vice president; Hugh S. Ten Eyck, president, and B. D. Cooper, executive vice president.
- 12. The Best Fertilizers Company (Texas) — Donald Valverde, vice president of production; Russell C. Dellingar (seated), president; Dr. W. O. Trodden, executive vice president; Frank W. Chambers, controller and secretary-treasurer, and Dr. Gaylord L. Hanes, vice president and director of sales.
- 13. Harold E. Mills, director of research; William R. Mustian, Jr., director of research and development, Occidental Corporation of Florida, and E. P. Estep, project engineer, at Lakeland, Florida, superphosphoric acid plant.
- 14. The Best Fertilizers Co. (California) — Standing: Thomas A. Bruns, sales manager; John S. Bellecci, vice president of production, and Floyd B. Hornibrook, vice president of research and development. Seated: Elwood V. Hess, vice president of garden and lawn, institutions division; James H. Lindley, secretary-treasurer; Dr. William L. Garman, general manager; Julian A. Rogers, vice president of engineering, and Walter M. Ross, controller.
- 15. Occidental Fertilizer Group staff — A. A. Guffey, director of planning and control; Hugh S. Ten Eyck, group executive vice president; William Engs, director of manufacturing; B. D. Cooper, coordinator, and L. S. Herz, staff administrator.
- 16. A. C. Santore, vice president, Interore Shipping Corporation, Tampa, Florida.
- 17. Occidental Corporation of Florida — R. Henry Wheless, vice president in charge of operations; John M. Harris, president, and H. J. Stickney, assistant secretary and assistant treasurer, at construction site of Suwannee River Phosphate mine in Florida.

## SULPHUR AND PETROCHEMICALS

- 18. Harold W. Manley, president and managing director of Jefferson Lake Petrochemicals of Canada Ltd., makes presentation during dedication ceremony as Eugene H. Walet, Jr., president of Jefferson Lake Sulphur Company (right) looks on.

## RESEARCH, ENGINEERING AND DEVELOPMENT

- 19. Occidental Research & Engineering Corporation (ORE) — Dr. Ernest Csendes, executive vice president; Victor E. Kuegemann, director of economic development; James R. Colvin, vice president and executive director; Philip W. F. Casperson, director of technical development, and Frank W. Wilson, project manager, Saudi Arabia.
- 20. ORE New York Division — James Radford, manager of process department; Arthur P. Narins, executive director, and Charles A. Hester, manager of project development.



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**BOARD  
OF  
DIRECTORS**

1 DR. ARMAND HAMMER	President and Chairman of the Board, <i>Occidental Petroleum Corporation</i>
2 EUGENE C. REID	Senior Executive Vice President, <i>Occidental Petroleum Corporation</i>
3 EBERHARD P. DEUTSCH	Senior Partner, <i>Deutsch, Kerigan &amp; Stiles</i> , New Orleans
4 FREDERIC A. GIMBEL	Retired; formerly Vice President and Director, <i>Gimbel Bros. and Saks Fifth Ave.</i>
5 ARTHUR GROMAN	Senior Partner, <i>Mitchell, Silberberg &amp; Knupp</i> , Los Angeles
6 PAUL C. HEBNER	Secretary and Treasurer, <i>Occidental Petroleum Corporation</i>
7 S. V. HUNSAKER, SR.	Chairman of the Board, <i>S. V. Hunsaker &amp; Sons, Inc.</i>
8 NEIL H. JACOBY	Dean of Graduate School of Business Administration, <i>University of California at Los Angeles</i>
9 DR. LOUIS A. REZZONICO, SR.	Director and Chairman of the Management Committee, <i>Pepsi-Cola Company</i>
10 ROBERT S. ROSE	Vice President and General Counsel, <i>Occidental Petroleum Corporation</i>
11 CHARLES K. SCHWARTZ	Retired Senior Partner, <i>Gottlieb &amp; Schwartz</i> , Chicago
12 HUGH S. TEN EYCK	Group Executive Vice President for Fertilizers; President, <i>Interore</i>
13 EUGENE H. WALET, JR.	Group Executive Vice President for Sulphur and Petrochemicals; President, <i>Jefferson Lake Sulphur Company</i>



**OFFICERS and EXECUTIVE STAFF**

DR. ARMAND HAMMER .....	President
EUGENE C. REID .....	Senior Executive Vice President
HUGH S. TEN EYCK .....	Group Executive Vice President for Fertilizers
EUGENE H. WALET, JR. ....	Group Executive Vice President for Sulphur and Petrochemicals
ERNEST CSENDES .....	Executive Vice President for Research, Engineering and Development
ROBERT S. ROSE .....	Vice President and General Counsel
DORMAN L. COMMONS .....	Financial Vice President
E. F. REID .....	Vice President and Exploration Manager
RICHARD H. VAUGHAN .....	Vice President and Chief Geologist
CHARLES C. HORACE .....	Vice President and Chief Petroleum Engineer
ROBERT A. TEITSWORTH .....	Vice President, Geology
LAWRENCE E. SCOTT .....	Vice President
PAUL C. HEBNER .....	Secretary and Treasurer
CHARLES J. LEE .....	Controller and Assistant Secretary
THOMAS WACHTELL .....	Executive Assistant to the President
CHARLES B. McCABE .....	Administrative Representative, New York
LE'O T. ADAMS .....	Assistant Secretary
GLADYS LOUDEN .....	Assistant Treasurer

**PRINCIPAL SUBSIDIARIES**

GENE REID DRILLING, INC.
5000 Stockdale Highway, Bakersfield, California
THE BEST FERTILIZERS CO.
P.O. Box 198, Lathrop, California
THE BEST FERTILIZERS COMPANY
P.O. Box 5337, Houston, Texas
JEFFERSON LAKE SULPHUR COMPANY
1408 Whitney Building, New Orleans, Louisiana
JEFFERSON LAKE PETROCHEMICALS OF CANADA LTD.
Petroleum Building, Calgary, Alberta, Canada
INTERNATIONAL ORE FERTILIZER CORPORATION (INTERORE)
1301 Avenue of the Americas, New York, N.Y.
S. V. HUNSAKER & SONS, INC.
15855 E. Edna Place, Irwindale, California

**REGISTRARS**

BANK OF AMERICA NATIONAL TRUST & SAVINGS ASSOCIATION
Los Angeles, California
CHEMICAL BANK NEW YORK TRUST COMPANY
New York, N.Y.

**SECURITIES LISTED**

NEW YORK STOCK EXCHANGE
PACIFIC COAST STOCK EXCHANGE

ARTHUR ANDERSEN & CO.
Los Angeles, California

**AUDITORS**

UNITED CALIFORNIA BANK
Los Angeles, California
THE CHASE MANHATTAN BANK
New York, N.Y.

**EXECUTIVE OFFICES**

THE KIRKEBY CENTER
10889 Wilshire Boulevard
Los Angeles, California

*Occidental Petroleum Corporation  
Annual Report for 1964  
Designed by J.Hammer*

## Back Cover

49 Groundbreaking at Occidental's \$10 million phosphate rock processing plant, Suwannee River Mine, Florida. L to R: John M. Harris, C. R. Watson (president, Hamilton County Chamber of Commerce), and Dr. Armand Hammer.

50 Interore urea fertilizer being lowered into hold of Dutch freighter for shipment to India.

51 Truckload of ammonium sulfate is ready to leave Best Fertilizers' Lathrop plant.

52 Unloading mud tank at new Occidental drilling site.

53 S. V. Hunsaker sales office at entrance to \$11 million, 585-unit Sunshine Village Homes development in Walnut, California.

54 Aerial view of Occidental's Suwannee River Mine phosphate rock plant under construction.

55 Freighter unloads Interore fertilizer at New Delhi, India.

56 Petrogas Processing, Calgary, Canada, is largest of Jefferson Lake Petrochemicals' three sulphur producing plants.

57 Gene Reid Drilling, Inc. operator controls drawworks as rotary table turns drill pipe.

58 Thousands of bags of fertilizer await distribution at Interore's open-air depot in Milan, Italy.

59 Chemical Division of Jefferson Lake Sulphur in Houston, Texas, produces phenol, cresylic acids, sodium sulphide, and many other products.

60 Central control room is nerve center of Petrogas boiler plant.

61 Station at Best Fertilizers' Lathrop plant meters and reduces pressure of incoming gas from Occidental's McMullin Ranch field.

62 Deep-well rig drilling Occidental well in Louisiana woods.

63 View from top of derrick at Occidental drilling site in Kern County, California, shows block, drill pipe, and rotary floor.

64 Massive cooling tower dwarfs adjacent hydrogen reformer furnace at Best Fertilizers' Lathrop plant.

65 Unloading SS Rice Queen, nation's only fully automatic bulk food (and phosphate) carrier.

66 Dry ice plant at Lathrop utilizes carbon dioxide byproduct of Best's ammonia production process.

67 Drilling barge seeks oil for Occidental in Bayous of Jefferson Parish, Louisiana.

68 Sulphur plant at Petrogas Processing converts sour gases to sulphur dioxide.

69 Treating equipment readies water for use by Petrogas boiler plant.

70 Air coolers and water tower rise above gas treater building at Petrogas plant.

71 Powerful Petrogas blowers each moves 50,000 cubic feet of air per minute.

72 Scoop unloads Best Fertilizers ammonium sulfate (shipped by Interore) from hold of freighter at Santos, Brazil.

73 Petrogas technician adjusts controls in gas treater facility.

74 S. V. Hunsaker's College View Apartments at Fullerton, California, feature two-story fourplex buildings, complete with detached garages and full service facilities.

75 Tubing sections in rack on completion rig at new Occidental gas well.

76 Mountainous stockpile of Jefferson Lake sulphur rises above railroad cars on flanking sidings.

77 Tractor-mounted winch lowers 40-foot section of 12-inch natural gas pipe into trench for new pipeline to carry Occidental production.

78 Lakeland, Florida, facility of Occidental Research and Engineering boasts an outstanding staff of specialists in all fields connected with the exploitation of phosphates.

79 Boiler house auxiliary equipment at Petrogas plant appears as complex maze of pipes and valves.

80 New treating facilities installed at Occidental's Amber Lease to handle increased production from steam flooding.

81 Nearly completed addition to sulfanol facility reflects Calamco's continuing plant expansion program at Lathrop.

82 Exhaust fumes from Occidental's superphosphoric acid plant have no harmful effect on orange grove, thanks to special anti-pollution device developed by Lakeland, Florida, plant.

83 New liquid urea reactor at Best Fertilizers produces high-analysis liquid nitrogen fertilizer.

84 Liquid sulphur is vatted at Petrogas Processing plant.

85 Steel towers at Petrogas plant remove acid gas as one step in processing cycle.

86 Korean farmers apply Interore fertilizer to their small field by primitive hand method.

87 Basic research is one of principal functions of Occidental's Lakeland, Florida, analytical laboratory.

88 Raw sulphur is stored in open-air vat at Jefferson Lake Petrochemicals' Coleman, Canada, plant.

89 Power steam boilers play integral part in sulphur-gas separation process at Petrogas.

90 Technician monitors meter on steam generator at Occidental's Amber Lease thermal recovery project.

91 Dually completed Occidental well produces natural gas from two separate zones.

92 Best Fertilizers' Houston, Texas, Plant No. 1 ships more than 1,000 tons a day of ammonium sulfate and other fertilizers.

93 Occidental's Lakeland facility includes a fully equipped product development laboratory.

94 Loading truck with bulk superphosphate fertilizer at Interore distribution center in Victoria, Australia.

95 Natural gas begins flowing into pipeline as crewmen open valve of newly completed Occidental well.

96 Planned community of 500 S. V. Hunsaker Sunshine Homes, elementary school, and other facilities nears completion at Newhall, California.

97 Technician monitors chart records at console in control room of Occidental's superphosphoric acid plant in Florida.

*Executive Offices: 10889 Wilshire Boulevard, Los Angeles, California*

